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by Andrew Erskine and Alexander Landry

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POLICY PERSPECTIVE

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In a modern context, defence operational capacity depends heavily on energy. Just like the old saying that "an army marches on its stomach," a technological and mechanized military requires large amounts of fuel to operate its army, air force and naval fleets. Considering these energy needs, military logistical details have major implications for NATO, especially when Russia's war in Ukraine has exposed Europe's $1 billion-a-day expenditure on Russian oil, gas and coal as weak points in the Alliance's strategic and operational ability to function.

Energy security clearly plays an important role in the Alliance's mission to accomplish its core tasks of deterrence and defence, crisis prevention and management and co-operative security. At the latest NATO summit in Vilnius, energy security was mentioned no fewer than five times in the communiqué.[1] As a critical enabler to these core tasks and all military operations, energy is arguably NATO's most important resource, and it is under strain. As NATO is not an energy institution, its energy security agenda must also constantly adapt to support the core tasks as well as priorities not just of the Alliance, but its members as well. Consequently, this capability gap is an opportunity for Canada to take a leading role in energy security.

The Russian Threat and the Weaponization of Energy

The global energy landscape shifted following Russia's February 2022 invasion of Ukraine. Although Russia primarily sees conventional maneuvers as part of the campaign, it has been perpetrating hybrid warfare actions in Ukraine since the 2014 illegal annexation of Crimea, including specifically targeting energy sector resources. This conflict and its corollary weaponization of energy to exert pressure both on Kyiv and NATO members have significantly reshaped the energy landscape in the international community.

There has been a dramatic reduction of energy flows from Russia to Europe, which has seen the latter struggle to replace inputs. Europe's energy security now hinges on increasingly long supply chains that enable inputs of non-Russian energy but remain vulnerable to adversarial interference. However, it is difficult to portray this as unexpected, as there were numerous calls from experts to diversify energy inputs prior to the invasion, comically embodied by former U.S. president Donald Trump's comments at the 2018 Brussels summit regarding European reliance on Russian energy. As a result, Norway has had to increase its gas supply via extensive undersea gas pipeline networks in the North Sea, becoming the largest supplier of gas to Europe, while an expansion of LNG import facilities has gotten underway, turning to a different source than the usual Russian provisions.

The Ukraine conflict offers insight into the realities of potential conflict concerning the resilience of energy supplies. Russia has launched hundreds of attacks systematically targeting civilian energy infrastructure such as power plants, electrical grid nodes, pipelines and fuel depots. The

[1] Namely in paragraphs 7, 52, 65, 68 and 69.

damage has resulted in major blackouts and electricity rationing nationwide intended to weaken the population's resolve through the 2022–2023 winter period.

Although in the spring of 2023 Ukraine was able to resume some of its electricity exports to European markets, the resilience and security of its energy infrastructure remain dependent on Western support through provision of air defence capabilities, infrastructure repair items and independent power generation equipment. The potential energy disruptions can fundamentally disrupt social cohesion and military operations, enhancing the need to focus on energy threats.

Implementation of NATO's Role in Energy Security

The 2022 Madrid summit was unequivocal in its outline for NATO in enhancing strategic awareness activities, specifically relating to enabling allied focus through a reliable and efficient energy supply. This has included a new strategic concept, but it comes with costs as well. In response to Russia's invasion of Ukraine, NATO enhanced its forward presence as part of its deterrence and defence posture on the eastern flank, which has consequently placed additional strain on fuel requirements throughout the Alliance.

Although NATO is placing more attention and financial resources on the demand side for energy, as demonstrated by the Vilnius summit communiqué outlining the commitment to ensuring secure, resilient and sustainable energy supplies, the Alliance needs to seriously address the supply-and-demand sides of energy security. Specifically, NATO must focus its attention on energy in the short term which will compel the Alliance's members to react promptly to sudden changes in the energy landscape to support energy-saving measures, become self-sufficient and balance fuel burdening for operational needs.

From an overarching strategic standpoint, this has been done in two ways. First, the war in Ukraine has seen a pronounced co-operation between European agencies and NATO, including the International Energy Agency and the European Commission. The 2022 European Commission plan to respond to rising energy prices sought to reduce dependence on Russian oil, coal and gas, aiming to cut EU demand from Russia by two-thirds in 2022 alone.

Second, NATO has initiated discourse with partners such as Algeria, Azerbaijan and Qatar towards increasing gas supplies, thus easing the energy deficit in Europe. In June 2023, the NATO Military Committee met with select partners to further discuss energy security issues as part of a thematic series, highlighting the need to continue leveraging existing partnerships to develop stable and reliable energy supplies. Working with some partners is not without its risks, as robbing Peter to pay Paul may prove dangerous in the midterm should the European Union be unable to guarantee its own energy supplies with internal oversight.

Speaking to the military application of energy security, the NATO Operational Energy Concept (OEC), under the supervision of Allied Command Transformation, aims to prepare military forces for energy transition. In particular, the OEC seeks to bridge the gap between political-strategic

guidance and tactical-level realities for NATO. Experimentation for this concept is expected in the next six to 12 months, while the Conference of National Armaments Directors (CNAD) continues to also address tactical-level implications for energy security through a variety of NATO armaments groups.

Canada's Role for Energy Security

For Canada, this shifting landscape offers Ottawa an opportunity to go beyond the proposed two per cent of GDP spending on defence and contribution of conventional military capabilities. By using its distinct and niche experiences in energy operations along the civilian and military sectors, Canada can become a leader in assisting NATO to plan and implement ways for the Alliance to seize its energy needs with hostilities growing between the Euro-Atlantic community and Russia.

After Russia's invasion, European countries inked agreements with prominent energy exporters. Canada was also seen as a partner for energy, showcased by a state visit here by German Chancellor Olaf Scholz. During his trip, Scholz was adamant about establishing an agreement for purchasing Canadian LNG, demonstrating Germany's new attitude towards having multiple energy suppliers. Unfortunately, no LNG deal was signed. Instead, Prime Minister Justin Trudeau was keener on signing an agreement for Canadian hydrogen production – a nascent industry with minimal production capacities in Canada.

Canadian LNG has a competitive advantage over some of the countries that NATO and the EU have approached. For instance, LNG leaving Canada's East Coast for Europe takes about six days less than American LNG, which departs from America's Gulf Coast. Canada's geography also makes Ottawa an ideal partner for Europe over Algeria, Azerbaijan and Qatar, especially since each country's LNG companies must travel through the Suez Canal, the Mediterranean Sea or Eurasia, vital chokepoints that can be targeted by Russian naval and aerial capabilities.

LNG shipments crossing the Suez Canal, specifically from Qatar, could be further delayed if the waterway becomes obstructed due to maritime traffic, as happened in 2021 when a container ship was wedged in the Canal for six days. If Algerian, Azerbaijani or Qatari LNG were unable to reach NATO members, deliberately or accidentally, the Alliance's readiness for force responsiveness and its ability to reinforce depleted stocks of fuel would drastically hamper NATO's deterrence and defence posture. Canadian LNG, on the other hand, has more readily accessible sea lines in the North Atlantic, thereby offsetting possibilities of LNG transports getting congested or targeted when entering vital chokepoints in the Mediterranean Sea, northwestern European ports and across the English Channel, where a majority of NATO's seaport-connected facilities are located.

To develop the North Atlantic as a critical logistic region for NATO's energy security, Canada needs to lead in courting Greenland, Iceland, the U.K., Norway and Denmark, with a specific interest in using the Faroe Islands, to co-develop the so-called Greenland-Iceland-United Kingdom-Norway (GIUKN) gap. In particular, Ottawa will need to work with these partners in

designing the most efficient coastal locations to install seaport-connected facilities to offload and load LNG, inland refineries and fuel depots as well as an intricate system of roads, rail or pipelines that can transport energy to and from a destination. To finance this undertaking, Ottawa and GIUKN gap countries should meet with NATO's major powers to implore their civilian oil and fuel companies to invest in the LNG infrastructure and logistical support needed to get the gap operational.

By incorporating the GIUKN gap into NATO's energy infrastructure, the Alliance can deter Russian and Chinese investors from taking stock in critical energy infrastructure in Greenland and protect and reinforce the economic exclusive zone of countries making up the GIUKN gap through increased NATO naval presences. NATO can also initiate a transatlantic supply chain that anchors Canadian energy resources for Europe's energy security resiliency. Moreover, the GIUKN gap can evolve into a vital hub for strategic energy reserves that can assist NATO in establishing a more reliable and adaptive energy system, transporting fuel at a moment's notice to important forward positions through the North and Norwegian Seas.

With more options to supply energy to NATO allies, Canada should approach the EU to sign an energy security policy, similar to the Action Plan on Military Mobility, to jointly identify gaps in fuel infrastructure emerging along the GIUKN gap. A Canadian-EU plan on energy mobility would also aim to strengthen supply chains by meeting the short-term energy demands needed to support large-scale movements of allied military forces.

Canada should also begin arranging a fuel acquisition plan with the EU for wartime, as the current acquisition arrangements were designed for peacetime. Central to this arrangement should be the protection of civilian tankers, LNG terminals and offshore energy sites. Moreover, the arrangement should aim to counter high energy costs from contractor fratricide by having certain NATO countries, who have sufficient margins of energy supplies for civilian and military use, supply their oil and fuel companies with subsidies to fund infrastructure and logistical support for NATO forces stationed and transported to the eastern and northern flanks.

An added course for Canadian energy security leadership would be leveraging its expertise and experience in private and public works on pipelines to deepen Euro-Atlantic civilian-military co-operation and integration for energy resiliency. Having a world-class pipeline system, Canada should participate in NATO's Logistic and Petroleum committees to assess what areas Ottawa can assist in expanding NATO's pipeline system to the Baltic and Balkan regions as well as in developing the eastern flank's military storage and fuel distribution capacity abilities. In particular, Canadian insight would be profoundly useful in recommending steps to develop a NATO standardization agreement on energy infrastructure connecting established networks of pipelines in Western Europe to Central and Eastern European positions.

Canada can also use its knowledge of submarine electricity cables to assist in engineering, constructing and operating power lines that transport renewable energies emerging from Nordic hydroelectric, wind and geothermal sources. Having successfully invested in and commissioned the Maritime Link through the Cabot Strait in Atlantic Canada and with plans to construct the

Kivalliq Hydro-Fibre Link – a 1,200-kilometre and 150-megawatt transmission line – Ottawa has copious civilian capabilities in designing and constructing world-class and complex electricity cables in surface and subsurface environments, including in deep and shallow waters as well as in areas covered by ice and tundra. With distinct civilian expertise in this area, Canada should approach the EU and Norway to develop a Memorandum of Understanding to co-launch a cross-border strategy for the movement of energy and oversight conditions of electricity cables to ensure that NATO's military bases and outposts can receive renewable energy from civilian grids and storage facilities.

Meanwhile, with Halifax confirmed as North America's regional office for the Defence Innovation Accelerator for the North Atlantic (DIANA), Canada must immediately set forth extensive funding for green energy platforms. In particular, Canadian funding should be directed towards dual-use technologies and energy infrastructure that will provide NATO forces the means to establish and maintain a static presence – main operating bases and forward operating positions – in non-permissive locations along the eastern and northern flanks through the use of wind, solar and geothermal resources.

By advancing in these areas, NATO leaders and planners can reduce logistical barriers associated with fuel burdens and energy deliveries that often require route clearance, convoy escort, force protection and mitigating threats from accidents like fuel spills. Moreover, as allied militaries move towards zero-emission vehicle technology and with unmanned aerial vehicles becoming more dependent on batteries for operationality, NATO will need an untiring energy infrastructure to support the storage, charging and consumption of portable, renewable and electric power deep into the front lines of a conflict zone.

Conclusion

Returning to the initial energy security discussions for NATO, the Brussels Summit Declaration posits that "it is essential to ensure that the members of the Alliance are not vulnerable to political or coercive manipulation of energy, which constitutes a potential threat." Given Russia's weaponization of energy and the heightened risk to the Alliance members' critical energy infrastructure, an enhanced focus on NATO's energy infrastructure resilience is needed.

Russia's actions to securitize the energy sector over recent years are not the first, nor will they be the last time that such a resource has been a critical factor in the geopolitical arena. China too must be considered an adversarial entity in energy security, as highlighted by the most recent 2022 NATO Strategic Concept. Fortunately, NATO has addressed this concern by establishing the NATO Operational Energy Concept as well as the joint European and NATO action initiatives for secure and sustainable energy. Although certainly not the solution to the problem holistically, it does set the foundation for the future.

With the Alliance taking more responsibility towards energy security, individual members must go beyond their traditional notions of contributing to NATO. For Canada, this will mean an

outlook to assume a position as a leader in implementing NATO's plans for energy security, in both the military and civilian sectors. This would be the embodiment of NATO's Article 2, colloquially termed the "Canadian Article," setting the foundation for further economic and military co-operation among the allies for years to come.

About the Author

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