Japan's Fossil Fuel Supply Faces *Unavoidable Chokepoint Risks*

REDUCING FOSSIL IMPORT DEPENDENCE IS CENTRAL TO JAPAN'S LONG-TERM ENERGY SECURITY

Yoko Mulholland, Richard Smith, Maria Pastukhova

Japan's heavy reliance on fossil fuel imports makes it one of the most vulnerable countries in the world to disruptions at maritime chokepoints. While it has a toolkit to manage short-term shocks, it does little to address its structural resilience or exposure to chokepoint risks. In some cases, Japan's approaches can even deepen the dependencies that make it so vulnerable. Diversifying fossil fuel suppliers and chasing new fuel deals offer limited long-term protection. Japan's real energy security will come from cutting its import dependence through bold investment in domestic clean energy, electrification, efficiency, grids, and storage – the most durable route to Japan's resilience.

*This is a Japan-focused briefing based on our major report, **Beyond Securing Supply: Chokepoint risk for oil and gas importers**.*

Key recommendations for the next decade

We propose a four-track policy toolkit that pairs immediate impact mitigation with longer-term resilience building.

Stabilise now

In the immediate term, Japan should maximise existing non-fossil generation, storage and demand response, fast-track already built renewable projects delayed by grid or permitting issues, and institutionalise early demand reduction and energy efficiency measures as the first line of crisis management while structural reforms take effect.

Limit fossil lock-in

In the medium term (next 0–3 years), Japan should manage fossil dependence by treating supplier diversification as temporary, prioritising flexible contracts, and avoiding long-lived infrastructure that locks in LNG and oil use – and chokepoint vulnerability.

Cut structural exposure

Over the next 3–10-years, Japan should pivot from crisis-driven fossil procurement towards cutting structural exposure, to build lasting resilience by accelerating electrification, grid expansion, offshore wind, and energy efficiency as core energy security strategies.

Strengthen energy systems resilience

Starting now and accelerating over the long term, Japan should strengthen system resilience by protecting infrastructure and improving crisis readiness, diversifying critical mineral and cleantech supply chains through Asian and wider international cooperation, and leading international strategic coordination among major importers and consumers to reduce further exposure to energy supply shocks.

Global fossil fuel trade relies on a small number of maritime chokepoints

The current Strait of Hormuz crisis is a reminder that fossil fuel security is not determined by aggregate supply alone. A market can look well supplied on paper and still become highly fragile if a major route for moving oil or LNG is disrupted. Conversely, when markets are already tight, as they are during the current crisis, chokepoint disruption can quickly amplify scarcity, price volatility and economic stress.

For import-dependent economies, the core risk is not only whether enough fossil fuel exists globally, but whether it can be delivered reliably and affordably. That delivery can be disrupted through events in "**physical chokepoints**" – conflicts, blockades, accidents and, increasingly, climate impacts, including disruptions to ports and infrastructure due to extreme weather events – but also through "**paper chokepoints**" such as insurance withdrawal, sanctions, inflexible contracts and freight constraints. These risks increasingly compound one another, eroding the system's capacity and making even temporary disruptions cascade through global markets.

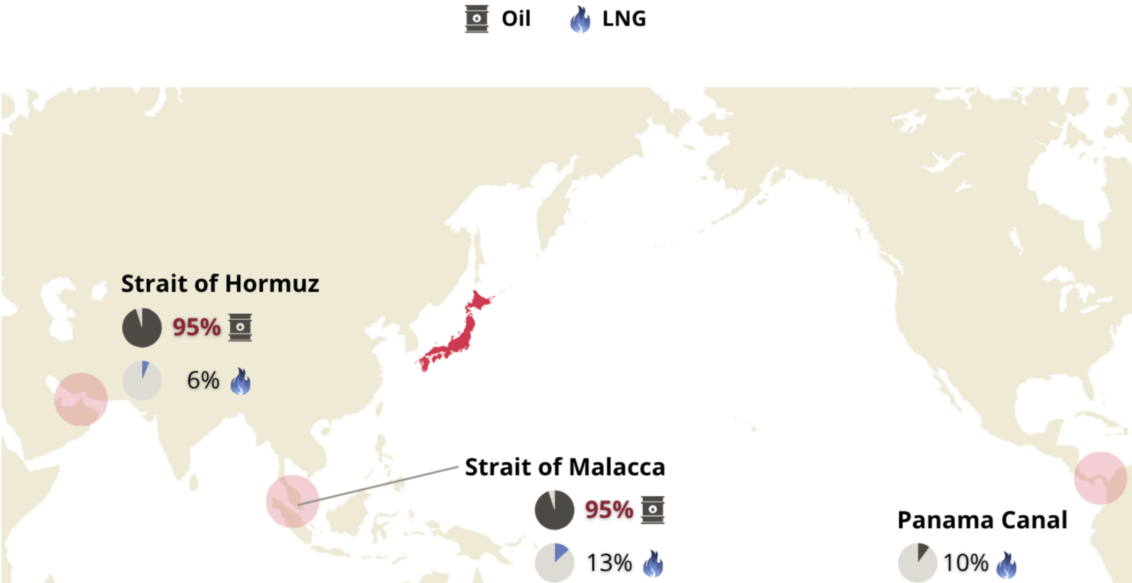
The Straits of Hormuz and Malacca are Japan's biggest sources of exposure for fuel imports

Figure 1 (next page) highlights how Japan's oil imports in particular are highly dependent on the Straits of Hormuz and Malacca. The 2026 conflict in the Middle East has demonstrated how rapidly disruption around the Strait of Hormuz can move from geopolitical risk to economic vulnerability. The Strait of Malacca presents a different but equally structural risk: it is not only a maritime passage, but one of the world's most congested and strategically sensitive sea lanes, exposed to regional military tensions, shipping congestion and accidents, piracy and terrorism, and adverse weather events. A recent Lowy Institute analysis[1] underlines that the strategic calculus surrounding control of maritime chokepoints has not changed for over a century, and that instability in Japan's neighbourhood could have profound implications for control of the Strait of Malacca, one of the world's most critical, congested and heavily trafficked sea lines of communication.

[1] Lowy Institute, July 2025, **From Gallipoli to the Strait of Malacca: Why maritime choke points still decide the fate of nations**

Japan's dependence on oil and LNG chokepoints

ESTIMATED SHARE OF OIL / LNG IMPORTS DEPENDENT ON EACH CHOKEPOINT



Source: *E3G analysis using a supplier proxy share methodology to estimate structural exposure, using data on crude oil and LNG imports by partner country, and typical shipping routes. See our report* ***Beyond Securing Supply: Chokepoint risk for oil and gas importers*** *for full methodology and sources.*

Figure 1: The majority of Japan's oil imports are exposed to disruption at the Straits of Hormuz and Malacca. LNG dependence is more dispersed (with major volumes from Australia, Southeast Asia, Russia and the United States), but still affects appreciable quantities of imports.

Japan's risk profile: strong buffers but extreme chokepoint exposure

No importer is insulated from chokepoint disruption. Global oil price transmission exposes all oil importers to systemic volatility, while LNG-reliant economies are additionally exposed to physical delivery constraints, shipping bottlenecks and regional price competition. Overall vulnerability therefore depends not only on whether an economy is exposed to major maritime chokepoints, but also on how far it can absorb supply and price shocks through strategic reserves, financial buffers and system flexibility. For that reason, our assessment of Japan's vulnerability as an importer contains two dimensions: **exposure and resilience**, assessed for Japan's oil and gas dependence, respectively (see Figure 2, page 9).

While this analysis focuses on oil and gas, coal also remains a significant component of Japan's imported energy mix. Coal imports are exposed to comparable risks, including price volatility and disruptions at key maritime chokepoints. Although these vulnerabilities are somewhat less concentrated than in oil and gas supply chains, increasing reliance on coal beyond short-term crisis response would entail substantial risk and should not be considered a secure fallback option.

Oil imports: strong buffers, chronic exposure to global price shocks

Japan's **oil exposure is very high**. Firstly, it is structurally dependent on imported oil: According to IEA-related country data, Japan's domestic crude oil production is negligible, leaving the country almost entirely dependent on imports. Secondly, its oil imports are extremely exposed to chokepoint risk. 95% of Japan's crude oil imports come from the Middle East,[2] which means a very large share of its crude supply is exposed to the Strait of Hormuz. For cargoes travelling onward to Northeast Asia, this also implies heavy reliance on the Strait of Malacca and adjacent Asian sea lanes (Figure 1). Thirdly, because oil is globally priced, Japan is exposed not only to physical disruption of its supply, but also to benchmark-driven price shocks even if cargoes are rerouted or sourced elsewhere.

Although oil now plays only a marginal role in power generation, it remains critical for transport fuels and for a wide range of oil-derived feedstocks and materials, so price shocks transmit rapidly through the wider economy. In the recent Strait of Hormuz crisis, nearly 80% of Japanese firms reported negative impacts, with over 70% citing higher costs for crude-oil-derived materials and nearly 65% pointing to rising gasoline prices.[3] This makes Japan's oil vulnerability a function of both route dependence and the wider macroeconomic transmission of oil price spikes, which affect everything from transport costs to petrochemical feedstocks and household fuel bills.

Japan's **oil resilience is very high** compared with many other importers. It has some of the strongest oil-security buffers globally: official data and recent reporting indicate that even after emergency drawdowns in the Strait of Hormuz crisis, as of mid-May 2026 Japan still held petroleum reserves covering around 205 days, comprising 121 days in national oil reserves, 84 days in privately held reserves and 1 day in a joint crude oil storage programme with oil-producing countries.[4] Japan's relatively high energy efficiency and reduced use of oil in power generation also help limit the economy-wide impact compared with more oil-intensive systems. Japan's large foreign exchange reserves and deep capital

[2] Ryo Eto, 2026, **Expanding Import Share of US Crude Oil and LPG in Japan in FY2025**, Institute of Energy Economics, Japan (IEEJ)
[3] Tokyo Shōkō Research, April 2026, 緊迫続く中東情勢　企業の約 **8** 割で事業にマイナス ガソリン価格と原材料の高騰、品薄に根強い懸念 (Tense Middle East situation has negative impact on around 80% of companies: persistent concerns over rising gasoline prices, higher raw material costs and shortages
[4] S&P Global Commodity Insights, 12 May 2026, **Japan PM says no additional oil reserve release after securing enough crude for June**

markets also strengthen its ability to finance temporary increases in the dollar-denominated oil import bill.

These buffers reduce the severity of shock, but they do not eliminate exposure. Strategic petroleum reserves can cushion temporary supply disruptions and help stabilise markets, but they cannot fully insulate Japan from global benchmark price spikes, insurance repricing, shipping constraints, or prolonged disruptions through the Strait of Hormuz and the Strait of Malacca. Japan is therefore best understood as a highly exposed oil importer with unusually strong short-term resilience capacity, not as an importer insulated from oil chokepoint risk.

Gas exposure is amplified by LNG's role in Japan's power system

Japan's **gas exposure is high**. Japan is the world's second-largest LNG importer[5] after China, and LNG remains a major pillar of electricity supply, accounting for almost 33% of Japan's electricity generation in 2025[6] even though its use has fallen from the post-Fukushima peak as renewables have expanded and some nuclear units have restarted. This makes LNG one of the key channels through which fossil fuel shocks can transmit into the wider economy.

Japan's LNG supply is more geographically diversified than its oil supply, with major volumes from Australia, Southeast Asia, Russia and the United States.[7] This reduces reliance on any single supplier region compared with oil, but does not remove systemic exposure to insurance constraints, Asian spot-market competition,[8] or chokepoint disruption affecting Gulf-origin LNG and key East Asian sea lanes. LNG markets also have less short-term substitutability than oil markets: if cargoes are delayed, rerouted, priced away or unable to arrive, physical availability can become a constraint much faster.

Japan's **gas resilience is high**, yet more mixed than its oil resilience. While Japan benefits from large foreign exchange reserves, deep domestic capital markets, strong institutions, and a track record of crisis interventions that help absorb temporary increases in the LNG import bill, its high dependence on gas-fired power and limited LNG storage still leave the electricity system exposed in prolonged disruptions. Japanese buyers now maintain

[5] LNG Prime, 17 February 2025, **Japan's LNG Imports Down 0.4 Percent in 2024**

[6] Ember, 22 April 2026 (last updated), **Countries and regions: Japan**

[7] Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, June 2025, Energy Trends (June 2025 edition), **Chapter 1, Section 3: Primary Energy Trends**

[8] Asian spot LNG prices surged to $17–22/mmbtu in April 2026 due to supply disruptions from the Strait of Hormuz and Qatar, demonstrating how regional supply shocks intensify competition and pricing pressure even for buyers with diversified sourcing. Source: Financial Express, 15 March 2026, **Spot LNG prices remain elevated due to US-Iran conflict**

relatively sophisticated LNG procurement portfolios, and some recent contracts, especially with US suppliers, have significantly increased destination and resale flexibility.

Japan's resilience is constrained by the role LNG plays inside the electricity system. Because gas remains a major source of power generation and can act as a marginal price-setting fuel, LNG price shocks can feed into wholesale power prices and then into costs for households, utilities and industry. Japan's financial and institutional capacity gives it more room than many importers to cushion LNG shocks, but fiscal space is not unlimited.

▶ Japan's LNG reselling: short-term gain, mid-term risk

Japan also has another "face": reselling LNG it imports under long-term contracts, taking advantage of reduced domestic demand and favourable regional spot prices to onsell surplus cargoes at a premium. This strategy is currently seen as lucrative, with Japanese utilities estimated to have resold 600–800 PJ (around 11–15 million tonnes) of Australian LNG in 2024, generating roughly AUS 11–14 billion in revenue and likely more than AUS 1 billion in profit.[9] However, Japan's largest LNG buyers are expected to remain over-contracted by about 11 million tonnes per year through 2030 as domestic demand declines, just as a wave of new global LNG capacity creates a medium-term glut and pushes prices lower.[10] In this context, the onselling model can be seen as fundamentally time-limited: IEEFA also warns that margins on LNG resales could collapse and that Japanese utilities have already incurred losses on re-exports in past oversupplied periods, meaning today's trading windfalls are unlikely to persist and could instead leave Japan's energy system exposed to growing financial and contractual risks, if LNG arbitrage continues to be a central pillar of strategy.

[9] Institute for Energy Economics and Financial Analysis, October 2025, "**How Japan Cashes in on Resales of Australian LNG at the Expense of Australian Gas Users.**"

[10] Institute for Energy Economics and Financial Analysis, Sam Reynolds and Christopher Doleman, March 2024 **Japan's Largest LNG Buyers Have a Surplus Problem**

Japan also carries very high public debt (approximately 240–250% of GDP as of 2025[11]), meaning that subsidies, tariff support and utility compensation can soften price transmission, but cannot be treated as a permanent resilience strategy. The 2022–23 energy crisis showed this clearly: despite government intervention, core Consumer Price Index (CPI) reached 4.2% in January 2023, and seven major utilities were granted household electricity price increases of 14% to 42%.[12]

Moreover, Japan's physical gas buffers are limited. Unlike major European gas systems, Japan has no underground gas storage and instead relies on LNG tank storage at import terminals, equivalent to roughly just over a month of domestic gas demand.[13] Japan's growing role as an LNG portfolio trader offers some contractual flexibility to redirect cargoes, but this does not replace the security that comes from physical storage at home.

Japan's overall vulnerability is higher than that of close neighbours

Even with substantive short-term buffers, our overall assessment of **Japan's chokepoint vulnerability** is **medium-high**, making it as vulnerable as the EU, and **more vulnerable than South Korea, China and Singapore** to chokepoint risks (Figure 2, next page).

Japan's exposure is critically high, especially due to the majority of oil needing to transit the straits of Hormuz and Malacca, and gas price transmission into the power system. It does, unlike some other importers, possess substantial buffers that make it better able to absorb shocks. However, these buffers are largely short-term and cannot change the underlying reality that Japan is an island economy heavily dependent on seaborne fossil fuels crossing systemic chokepoints. Moreover, deploying them can come at substantial cost, including through macroeconomic pressures such as inflation. In our analysis, only India, Pakistan, Bangladesh and Thailand score as more vulnerable.[14]

For Japan, the strategic task is to shift from absorbing fossil fuel shocks to reducing the exposure that creates them, by building a cleaner, more flexible and less import-dependent energy system.

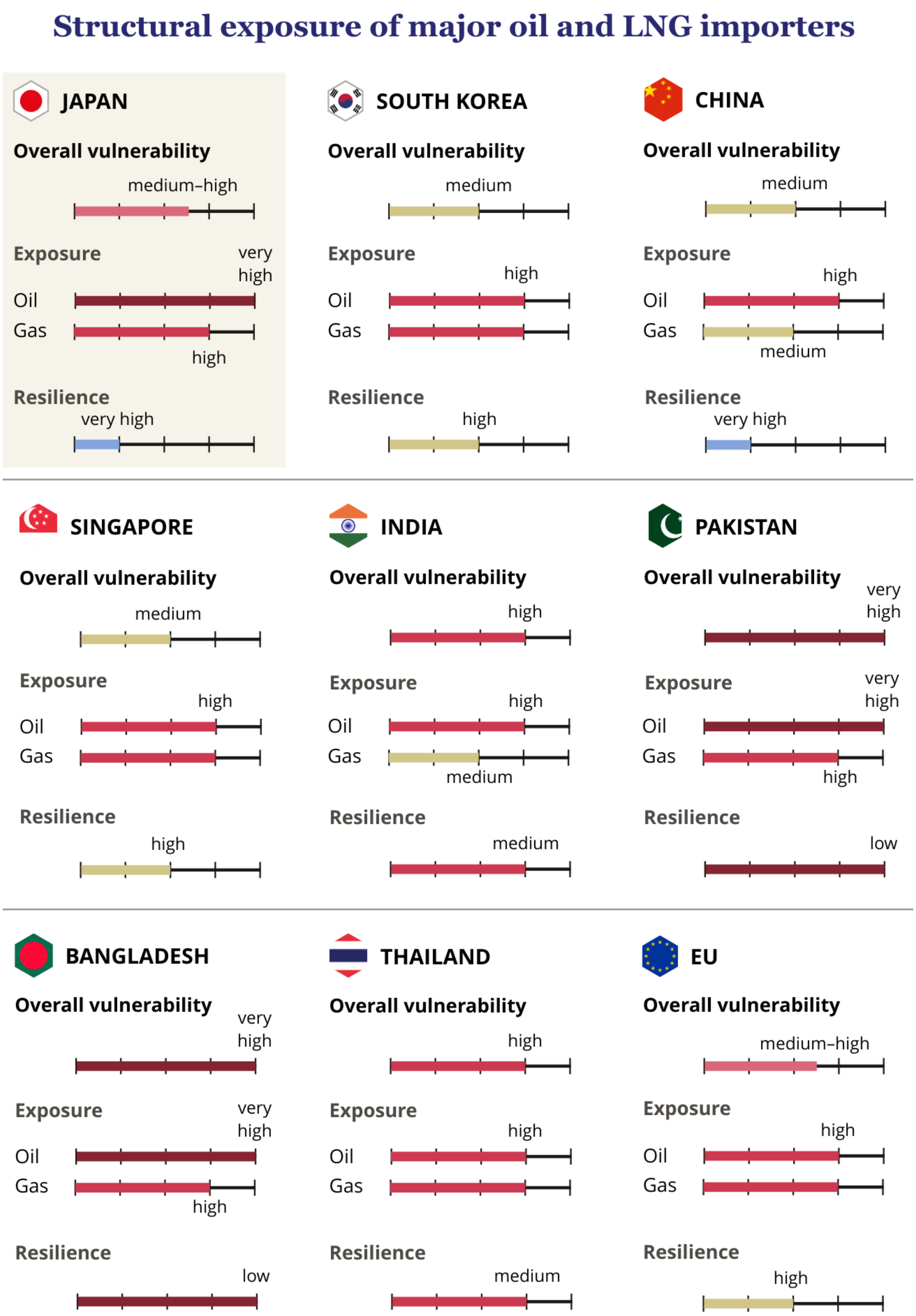
---

[11] Trading Economics, **Japan General Government Gross Debt to GDP**

[12] Reuters, 23 February 2023, **Japan's Consumer Inflation Hits 41-Year High, Keeps BOJ under Pressure**

[13] IEA, 2022, **Japan Natural Gas Security Policy**

[14] Major importers' overall vulnerability to chokepoint disruption is a function of their economic exposure to oil and gas, and ability to absorb shocks in price or supply. Further details of these assessments are provided in Annex 2 of our original report, **Beyond Securing Supply: Chokepoint risk for oil and gas importers**



Source: *E3G assessments as described in our report* ***Beyond Securing Supply: Chokepoint risk for oil and gas importers***

Figure 2: Japan is overall more vulnerable to chokepoint disruption than South Korea, China and Singapore, despite having high structural resilience.

Recommendations for Japan: managing immediate chokepoint shocks while reducing long-term structural exposure

Japan's current official crisis response is converging around a narrow toolkit: drawing down strategic stocks, accelerating the restart of nuclear units including Kashiwazaki-Kariwa Unit 6; suspending capacity caps on older coal plants for one year from April; deploying around JPY 1 trillion (approx. $6.3 billion) of FY2026 reserves into fuel and transport subsidies; and externalising part of the response through POWERR Asia,[15] announced at the AZEC Plus summit on 15 April. The LDP's 24 April emergency measures recommendations[16] reinforce this direction and explicitly omit accelerated renewable deployment as a near-term security lever, even though additional non-fossil generation is one of the fastest ways to sustainably cut LNG burn in the power sector. Japan has also been more cautious than other countries in implementing demand-reduction measures during this crisis, relying primarily on reserve releases and subsidies instead.[17]

Japan's strategic challenge now is to balance near-term responses to the crisis with longer-term transition: containing the immediate economic and energy-system impacts of disruption, while accelerating the shift to a system that requires fewer fossil cargoes to cross vulnerable sea lanes. We propose a four-track policy toolkit that combines short-term stabilisation measures with longer-term resilience strategies. The former mitigates impact, and the latter reshapes exposure.

Track 1 (short term): Immediate crisis stabilisation

Maximise non-fossil output already in the system.

Japan should prioritise maximum uptime of existing nuclear, hydro, solar, wind and geothermal assets, alongside faster dispatch of storage and demand-response resources. It should also identify already-built renewable projects facing grid or administrative delays and create emergency procedures to bring these online faster. This matters in Japan because additional non-fossil generation directly reduces LNG burn in the power sector, which is one of the quickest ways to reduce crisis-time import exposure.

---

[15] Cabinet Secretariat, Government of Japan, **Overview of POWERR Asia (Partnership on Wide Energy and Resources Resilience Asia)**

[16] Liberal Democratic Party of Japan, **Emergency Policy Recommendations for Securing Stable Supply of Energy and Critical Materials and Countermeasures against Maritime Transport Disruption (Second Package)**, LDP Policy Document

[17] The Mainichi, 28 April 2026, **Japan gov't hesitant on energy saving amid US-Iran conflict despite calls for action**

▶ Coal is not a dependable fallback when oil and gas supplies are disrupted

To address LNG supply risks amid the Middle East crisis, Japan has announced it will temporarily lift restrictions on older coal plants, allowing full operation for one year from April. While some short-term flexibility can be justified in genuine emergencies, it is essential that such measures remain clearly time-bound, transparently justified, and aligned with Japan's long-term decarbonisation and energy security goals. Prolonged reliance on coal could impose significant economic costs, particularly if Indonesia (Japan's second largest coal exporter) prioritises its own domestic coal use and potentially raises export prices. This would increase both import and compensation costs, and risk normalising what was meant to be an exception. Over time, this could also undermine Prime Minister Takaichi's vision for 100% energy self-sufficiency that is not dependent on resource-rich suppliers.

Use emergency demand reduction early.

Japan should institutionalise crisis-time electricity demand response, industrial demand agreements, public-sector energy-saving rules, and temporary transport demand-management measures such as priority fuel allocation for essential services, or temporary fare subsidies for public transport to incentivise use over private vehicles. These tools can lower the number of cargoes Japan needs at the very moment when they become most expensive and contested. Japan's experience with conservation campaigns and industrial coordination gives it more room than many countries to deploy demand reduction quickly.

Prepare for refined-product stress, not just crude shortages.

Rather than relying on improvised responses, government and industry should establish refined-product contingency plans in advance. Japan's April 2026 experience shows that even with one of the world's largest crude stockpiles, diesel and heavy fuel oil bottlenecks emerged[18] at the distribution stage within weeks. This forced METI to direct refiners to supply designated critical facilities on an ad hoc basis. Japan could reduce such risks by pre-designating critical sectors (e.g. medical, transport, essential manufacturing), setting clear allocation rules, and defining refiner obligations ahead of time, rather than negotiating them during a disruption. Jet fuel and kerosene contingencies deserve particular attention given the country's archipelagic geography.[19]

---

[18] Argus Media, 10 April 2026, **Japan to Ease Oil Bottleneck, Ensure Stable Supply**

[19] Jet fuel is essential for connecting remote islands when maritime routes are disrupted. Kerosene remains the primary winter heating source for northern regions and rural households lacking access to gas networks.

Track 2 (0–3 years): Manage unavoidable fossil exposure without lock-in

In the short term, Japan will continue to need imported oil and LNG. The aim should therefore be to reduce the severity of disruptions without extending structural dependence.

Treat supplier diversification as a bridge, not a solution.

Diversifying crude and LNG procurement, without long-term contractual lock-ins, can be a partial measure to reduce bilateral dependence or improve contractual flexibility. But it should be pursued with a clear recognition that diversification does not eliminate systemic exposure. Diversification should be understood as a bridge rather than a destination: a way to manage near-term chokepoint and price risks while Japan accelerates structural measures that permanently reduce fossil fuel demand, such as efficiency, electrification and the deployment of renewables. In this context, new oil and LNG contracts should aim to reduce the average contract duration and increase flexibility, explicitly linking diversification efforts to time-bound targets for demand reduction. Critically, new international fossil fuel projects of this kind should not benefit from public financing: the G7, including Japan, committed in May 2022 to "end new direct public support for the international unabated fossil fuel energy sector".[20]

Avoid major new fossil infrastructure justified primarily on security grounds.

Japan should refrain from using energy-security arguments to justify new LNG import capacity, expanded gas-fired power, or long-lived gas infrastructure that would come online too late to address near-term risks yet lock in fossil import for decades. In addition to domestic projects, this includes public financing for upstream and export LNG facilities overseas, many of which are incompatible with 1.5 °C-aligned timelines given their expected operating lifetimes. Given Japan's mature import system, the more defensible approach is to optimise flexibility within existing infrastructure while directing capital towards the grid, storage, electrification and domestic clean generation.

[20] Ministry of the Environment, Government of Japan. "**Results of the G7 Climate, Energy and Environment Ministers' Meeting**." May 29, 2022

Track 3 (3–10 years): Reduce structural exposure

This is the most important track. Japan's real energy security gain will not come from optimising fossil procurement, but from permanently reducing the volume of imported fossil fuel the system needs.

Integrate electrification as energy security policy.

Japan should explicitly integrate electrification targets for transport, buildings and parts of industry into its national energy security strategy, paired with accelerated clean power deployment. Electrification alone would increase LNG demand for generation, but the security benefit comes from simultaneously expanding clean power to displace both oil (in transport) and gas (in power, heating and industry), reducing exposure to volatile global fossil fuel markets.

Accelerate grid buildout and grid unification measures.

System integration is one of Japan's most important resilience gaps. Grid constraints, limited interconnection between regions, and the legacy split between eastern and western frequency zones all reduce the country's ability to move power efficiently and absorb large volumes of variable renewables. Japan should therefore treat transmission expansion, interregional transfer capacity, frequency-conversion capacity, digital grid management, faster connection processes and storage as strategic infrastructure. This is central to converting renewables potential into actual security gains. Japan's own energy strategy and outside assessments both identify the grid as a critical enabler and current bottleneck.

Move faster on offshore wind, especially floating wind.

Japan has a vast maritime domain (sixth largest EEZ[21] globally) and significant offshore wind potential. That makes offshore wind, especially floating wind, particularly important both for enhanced energy security and decarbonisation: it is one of the key scalable domestic resources that can materially displace imported fossil fuels over time. The extension of the 2025 EEZ amendment[22] to the Marine Renewable Energy Act improves this strategic outlook, but project delays, grid bottlenecks, local acceptance and supply-chain constraints still need active policy attention. Japan's EEZ-based offshore wind expansion is therefore not peripheral – it should be treated as part of the country's long-term resilience strategy.

Treat energy efficiency as a security resource.

Japan should elevate efficiency as a "first fuel" in security planning. In a highly import-dependent economy, efficiency is not marginal: every avoided unit of demand reduces

[21] Exclusive economic zone

[22] Renewable Energy Institute, 18 July 2025, **Latest on Offshore Wind in Japan: the 'EEZ Law'**

exposure to shipping disruptions, external price spikes and emergency procurement costs. Efficiency should be embedded before approval of new fossil import commitments.

Expand energy security contingency planning within alliance frameworks.

Japan should work with Australia and other Indo-Pacific partners on crisis playbooks for shipping disruption, insurance withdrawal, emergency fuel prioritisation and infrastructure incidents. These partnerships matter because Japan's energy security problem sits at the intersection of energy markets and wider regional security dynamics, including tensions affecting the East and South China Seas as well as the Gulf–Indian Ocean route structure.

Track 4 (0–10 years): Strengthen system resilience

In Japan, some renewable technologies such as solar are sometimes viewed as risky due to highly concentrated supply chains. However, no energy system is completely risk-free. Japan should weigh the manageable technical and financial risks of clean energy scaling against the far greater geopolitical risks of continued oil and LNG reliance. Disruptions in clean energy supply chains usually slow future deployment but do not shut off existing energy supply in the way LNG or oil disruptions can. That makes these risks serious, but more manageable through industrial policy, stockpiling and diversification.

As Japan expands clean domestic power, its core task is to secure a resilient decarbonised power system and broaden supply chains for key clean energy technologies.

4a. Protect infrastructure and improve crisis readiness

Strengthen cyber, port and subsea security.

Japan should harden LNG terminals, refineries, power-system control infrastructure, major ports, and undersea communications and energy-related infrastructure against sabotage, cyberattack and hybrid disruption. As the energy system electrifies, the resilience of grids, substations, interconnectors and digital control systems becomes even more central.

Expand domestic system redundancy.

Japan should invest in grid redundancy, regional balancing capability, storage and black-start capacity so that domestic bottlenecks do not replace maritime chokepoints as the main source of vulnerability.

Embed chokepoint stress-testing into macroeconomic and energy planning.

Japan should run regular scenario exercises covering Hormuz disruption, LNG shipping dislocation, insurance-market withdrawal, regional refinery outages, and concurrent cyber or subsea incidents. Given Japan's import dependence and macroeconomic sensitivity to fossil-price shocks, these exercises should be built into fiscal and industrial planning, not left as narrow energy-sector exercises.

4b. Diversify clean-energy supply chains

Reduce overconcentration without treating clean-energy dependencies as equivalent to LNG dependence.

Japan should diversify critical minerals, battery materials, transformers, power-electronics components and offshore wind supply chains through cooperation with trusted partners including Australia, the United States, Southeast Asian producers for example through the Asia Zero Emission Community (AZEC), and partners in Europe. Within AZEC, this could translate into structured cooperation to develop regional value chains of clean energy technologies, and serve as a platform to align investment, standards, and financing; while supporting partner countries in building domestic industrial capacity and ensuring secure and resilient clean energy supply networks across the Indo-Pacific.

Link industrial strategy to energy security.

Japan's clean manufacturing and materials strategy should be explicitly connected to resilience goals: strengthening domestic and allied capability in batteries, grid equipment, offshore wind components and hydrogen-related equipment where economically justified.

Invest in domestic critical minerals recycling infrastructure for long-term resilience.

Japan should scale domestic critical minerals recycling to ensure supply stability as several countries tighten export controls and to counter the narrative that clean energy necessarily deepens dependence on China. By investing now in advanced "urban mining" of batteries, magnets and e-waste, tightening collection systems, and supporting commercial recycling facilities, Japan can turn its growing stock of clean energy and electronic products into a domestic buffer of key minerals. This approach could in turn reduce single-supplier exposure and underpin competitive domestic cleantech manufacturing, and aligns with Japan's existing rare earths strategy and G7 commitments on resilient, circular critical mineral supply chains.[23] Given this, Japan should also deepen bilateral cooperation with G7 countries (e.g. Germany) on shared recycling standards, design rules, and technology exchange.

[23] The **G7 Critical Minerals Action Plan** unveiled at the Canadian G7 Presidency in 2025, builds on the Five-Point Plan that Japan championed as G7 host, and commits members to "resilient, responsible and circular" critical minerals supply chains, including recycling and resource efficiency.

4c. Deepen importer–importer cooperation

The aim should be to turn Japan's importer diplomacy from a fuel security strategy into an exposure reduction strategy: coordinating with other consumers to avoid panic competition, and with suppliers to manage the transition away from the dependencies that make chokepoint shocks so damaging.

Lead pragmatic coordination among Asian importers.

Japan should use the current crisis to promote more structured cooperation among major Asian energy importers, perhaps through fora such as its existing annual LNG Producer–Consumer Conferences.[24] Building stronger mechanisms with South Korea could be a natural starting point, given both countries' similar exposure as major Northeast Asian importers and their shared interest in avoiding competition for LNG and crude procurement during disruption.

Japan could also use AZEC Plus as the political umbrella to bring in Southeast Asian partners, India and other regional partners on these issues. The priority should be to advance practical crisis coordination, for example through joint stress-testing of Hormuz and Malacca disruption scenarios; clearer reserve-release communication; LNG cargo and shipping transparency; emergency demand-response protocols; and measures to avoid crisis-time bidding wars for replacement cargoes. AZEC and the related POWERR Asia initiative should also complement short-term crisis management with structural measures that support its member countries' energy security goals and efforts to reduce fossil fuel demand, including efficiency, electrification, renewables, grid flexibility, and methane abatement from the remaining LNG supply.

Build consumer–consumer cooperation with the EU on gas demand reduction.

Japan should establish structured consumer–consumer cooperation with European counterparts to accelerate gas demand reduction and improve crisis preparedness. This should focus on practical exchanges between network operators, utilities, regulators, industry associations and large energy users that have already tested demand response, fuel switching, targeted consumer campaigns, interruptible contracts and emergency support schemes since 2022. The objective should be a shared LNG crisis-management playbook: helping Japan adapt proven measures faster, avoid Europe's trial-and-error process, and reduce the volume of gas exposed to volatile global markets.

---

[24] The METI-led 2025 LNG Producer-Consumer Conference was co-hosted with the IEA and in collaboration with the Japan Energy Summit & Exhibition on 20 June 2025: **https://lngpcc.go.jp/en.html**

Use supplier diplomacy to manage the transition, not lock in the status quo.

Japan should continue engagement with major suppliers such as Saudi Arabia, the UAE, Australia, Qatar and the US, but frame these relationships as part of a managed transition security strategy. Supplier partnerships should help reduce crisis spillovers during the transition period: improving methane performance, increasing contract flexibility, clarifying emergency supply protocols, supporting producer diversification, and avoiding long-term infrastructure or offtake commitments that deepen future lock-in. This would make supplier diplomacy more than a search for replacement hydrocarbons: it would use Japan's buyer leverage to lower the geopolitical risks of fossil dependence, while helping producer economies prepare for a shrinking, more volatile oil and gas market.

ABOUT E3G

E3G is an independent think tank working to deliver a safe climate for all.

We drive systemic action on climate by identifying barriers and constructing coalitions to advance the solutions needed. We create spaces for honest dialogue, and help guide governments, businesses and the public on how to deliver change at the pace the planet demands.

More information is available at **www.e3g.org**

COPYRIGHT

AUTHORS

Yoko Mulholland is a Senior Policy Advisor in the Global Clean Power Diplomacy team, leading Japan power sector decarbonisation diplomacy work.

Richard Smith is a Senior Policy Advisor in the Global Energy Transition team, leading E3G's work on EU energy diplomacy.

Maria Pastukhova is Programme Lead, heading the Global Energy Transition Team, where she leads work on energy security, geopolitics of energy transition and global energy governance.