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Studies in Statecraft

Toward Comprehensive Green Security for Asia and the Pacific

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Executive Summary

Australia's current government has supported a vision of the country as a 'renewable superpower'. This imagines Australia supplying renewable energy and related goods to the world, in place of fossil fuels. Realisation of this vision could have major strategic benefits. It could help Australia enhance both its own and its trading partners' economic security, while making an outsized contribution to global climate security. This could subsequently enhance Australia and its region's traditional military security by minimising future climate-linked conflict and allowing Australia to improve ties with highly climate conscious and geopolitically important Pacific countries.

But strategic arguments have also held back Australia's renewable superpower transition. Key Asian countries, led by Japan and Korea, have argued that Australia should slow the pace of its transition to continue providing for their own fossil fuel-based energy security needs. They have also presented this obligation as related to other security concerns. However, arguments that energy, economic, traditional, and even climate security are dependent on sustained fossil fuel use are flawed. There is significant evidence to suggest a move towards renewables-based energy development and international interdependencies can bolster all of these security outcomes.

In its second term in office, the government could regain momentum on the renewables transition by embracing the concept of green security. It should work with its partners in both Asia and the Pacific to ensure this concept is regionally adopted.

Policymakers should adopt a comprehensive approach to related statecraft, including taking the following actions:

- Adopt and uniformly promote the new concept of 'green security', which particularly redefines energy security and its interactions with other concepts of security
- Highlight the various elements of green security in a new national security strategy, in line with Australia's commitments under the Pacific Island Forum's 2018 Boe Declaration
- Increase awareness of regional climate security threats by publicly releasing the Office of National Intelligence's 2023 assessment
- Increase support to Australia's renewable superpower model and wind back support to Australia's fossil fuel superpower model
- Support international fossil fuels-to-renewables transitions, particularly in Asia
- Internationally signal Australia's intention to provide long-term renewable-based energy security in place of fossil fuels
- Advance green security by revitalising strategic partnerships, prioritising new Japan and Korea ties, and creating new policy mechanisms, such as a regionally integrated clean commodities trading company, to promote the renewable superpower model abroad
- Engage the Pacific in promoting the green security concept in Asia, particularly in the context of the joint Australia-Pacific bid to host the COP31 climate summit in 2026

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"We reaffirm that climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific and our commitment to progress the implementation of the Paris Agreement."

— Boe Declaration on Regional Security

"Australia has the opportunity to become a renewable energy superpower, with the best resources in the world. We have unlimited potential to build a pathway to secure jobs and economic security for all Australians."

— Prime Minister Anthony Albanese and Minister for Climate Change and Energy Chris Bowen

"Australia has been dealt the most incredible set of cards to make ourselves the primary beneficiaries of the global net zero economy. We have a unique combination of geological, meteorological, geographical and geopolitical comparative advantages and we know it would be an egregious breach of our generational responsibilities as a government if we didn't play this winning hand."

— Treasurer Dr Jim Chalmers introducing the Future Made in Australia Bill 2024

Leveraging Australian Statecraft to Enhance Security

International strategic concerns, particularly around the merits of maintaining various 'securities', have heavily influenced Australia's recent energy and climate policy debate. In its first term in office, the Albanese Government regularly reassured Asian countries that it would continue to provide for their energy security.[1] This responded to rising concerns on Australia's commitments on this front, led by key strategic partners Japan and Korea. Asian critics opposed actions tied to Australia's increased climate ambition and its prioritisation of its own energy and economic needs amid the energy market chaos and broader international instability of the period.[2]

Yet, as this report outlines, the ensuing debate has obscured how Australia has been asked to provide a specific form of energy security. This is dependent on long-term fossil fuel use in a manner inconsistent with the 2015 Paris Agreement goal of limiting global warming, ideally to 1.5°C above pre-industrial levels.[3] Continuing to heed these requests will bring steep strategic costs. Australia has already been assessed as the second-largest fossil fuel exporter by greenhouse gas emissions.[4] Australia and its trading partners failing to rapidly abandon their carbon-intensive interdependencies will heighten climate insecurity and its known interactions with conflict risk.[5] It will likely also damage Australia's strategically vital ties with highly climate conscious Pacific nations, which face existential threats from sea level rise, natural disasters, and resource depletion.[6]

This report finds little justification for Australia remaining committed to providing long-term fossil fuel-based energy security to Asia. It argues Australia should instead tailor its domestic and international policies toward helping Asia move towards a position of valuing renewables-based energy security. Further from this, Australia could use various tools of statecraft to promote a new concept of comprehensive security, best termed 'green security'. This would acknowledge how climate, economic, and traditional security might also be advanced by Australia's increased production, and Asia's increased consumption, of renewable energy and related goods.

The first section notes how commitments to upholding Asian fossil fuel-based energy security ended a long-sought but short-lived sense of coherence in Australian climate and energy decision-making, tied to the Albanese government's 'renewable superpower' vision.[7] This was set to allow Australia to progressively provide for Pacific-valued climate security and, an albeit new conception, of Asian-valued energy security. Accelerated pursuit of the renewable superpower vision could also help ensure other securities, including Australia's future economic security.

The second section critically assesses the key claims supporting the view that Australia faces a new Asia-Pacific strategic impasse on climate and energy. It finds little evidence to support maintenance of this view. The Pacific conception of climate security—as defined by the Pacific Island Forum's 2018 *Boe Declaration on Regional Security*—and the optimal management of related threats, are rooted in overwhelming scientific and policy consensus.[8] But there is a comparative lack of evidence to support the narrow conception of energy security advanced by some of Australia's key Asian partners. Rather than energy security, Japan and Korea seem most concerned with countering perceived threats to their broader economic security if the world pursues a Paris-aligned green transition. But adapting to new realities would be more fruitful for all concerned.

The third and final section explores the implications for Australian policymaking. It outlines how Australia and its Asia-Pacific partners could and should shift from targeting the continued provision of fossil fuel-based energy security to progressively targeting renewable-based energy security, as part of a broader green security. Increased utilisation of renewable energy and related goods can, with the right policy commitments, not only help maintain but enhance mutual energy, climate, economic, and traditional security. Australia and its partners might better promote and achieve green security in key ways, including developing Australia's renewable superpower vision at the express cost of its fossil fuel superpower model, both at home and abroad.

Asia-Pacific Energy and Climate Trade-offs

Australia is often called an 'energy superpower' or similar.[9] As a liberal country, Australia has derived significant economic and strategic advantages from providing for—rather than weaponising, in the case of authoritarian energy superpowers[10]— other countries' energy security needs (see Box 1 for a description of various 'securities' featured in this report). Australia is the world's second largest combined thermal and metallurgical coal exporter, a top three liquefied natural gas (LNG) exporter, and a leading supplier of energy-intensive minerals and metals.[11] These are Australia's major goods exports and heavily focused on Asian markets.

Australia's associated ability to provide for Asia's energy security has featured heavily in the national energy and climate debate under Albanese government. Japanese actors have been the most prominent and vociferous opponents of government interventions in energy markets, followed by Korean counterparts. Public and/or private actors from China, Singapore, and Taiwan have all also publicly expressed concerns or been suspected of doing so privately.[i]

The wave of Asian opposition to Australian energy policy started in the wake of the 2022 energy market chaos that followed the Russia-Ukraine war. Various actors criticised Australian price caps on coal and gas, potential diversion of liquefied natural gas (LNG) exports for domestic use, and increased coal royalties, which mostly targeted Australia's own energy and economic security. But tightening of Australia's major climate legislation, the Safeguard Mechanism, was also a target of Asian complaints.[12]

The Albanese government introduced the Safeguard Mechanism reforms and other climate commitments as part of its 2022 election-winning pledge to make Australia a 'renewable energy superpower.'[13] This vision argues Australia can thrive by helping the world fight rather than exacerbate climate change. It notes Australia could leverage low-cost renewables to produce goods such as 'green' metals, develop its energy transition minerals wealth, or more directly—but with more technical and economic difficulty—export renewable energy via cable or in hydrogen and its derivatives.[14]

The Superpower Institute—formed by leading economists Ross Garnaut and Rod Sims—estimates a renewable superpower Australia could reduce global emissions by 8%, and create a larger, more sustained expansion than the mining boom of the early 21st century.[15] Australia's main renewable superpower commitments thus far came in the A$22.7 billion *Future Made in Australia* 2024 budget package.[16] This has provided support such as production tax credits to sectors including hydrogen, critical minerals, green metals, and low carbon fuels. The government explicitly framed the package as advancing economic security as well as climate action.[17] It pledges both domestic and international support to diversify clean energy supply chains as part of the security role.[18]

i Criticisms from Japanese public and private interests – which have most obviously linked energy concerns to broader strategic matters – are mentioned throughout this report and have focused on both coal and gas. Other Asian criticisms have been more limited to the energy market itself, and specifically gas concerns. Korean complaints include the Korean Ministry of Trade, Industry and Energy's July 2023 criticism of the Safeguard Mechanism and Korean Gas Corporation's April 2025 criticism of potential domestic gas reservation. The Chinese embassy in Australia expressed concerns over gas policy in March 2023; in May 2023, Australian Defence Minister Richard Marles reassured Singaporean officials of Australia's intention to remain an energy supplier, despite no obvious Singaporean public criticisms; in May 2022, Taiwan's ambassador to Australia noted the country felt "reassured" by the commitments to future LNG supply provided by Australia's Future Gas Strategy released that month, despite Taiwan also not being an obvious past critic. Other Australian promises to remain a reliable provider of fossil fuels to Asia are also noted throughout this report. Sources: Takeo Kumagai and Charles Lee, "S Korea Joins Japan in Seeking Exemption from Australia's Safeguard Mechanism," S&P Global Commodity Insights, July 27, 2023, https://www.spglobal.com/commodity-insights/en/news-research/latest-news/coal/072723-s-korea-joins-japan-in-seeking-exemption-from-australias-safeguard-mechanism; Angela Macdonald-Smith, "Korean Giant Strikes out at Gas Intervention," *Australian Financial Review*, March 31, 2025, sec. energy, https://www.afr.com/companies/energy/korean-giant-strikes-out-at-gas-intervention-20250326-p5lml9; Andrew Tillett and Angela Macdonald-Smith, "China, Japan United on Australian Gas Export Fears," Australian Financial Review, March 31, 2023, sec. federal, https://www.afr.com/politics/federal/china-japan-united-on-australian-gas-export-fears-20230331-p5cx2p; Andrew Tillett, "Marles Reassures Singapore over Gas Supplies," *Australian Financial Review*, May 1, 2023, sec. federal, https://www.afr.com/politics/federal/marles-reassures-singapore-over-gas-supplies-20230501-p5d4if; Phillip Coorey, Andrew Tillett, and Jessica Sier, "Trade Partners Applaud Gas Certainty; Trouble Brews for Labor at Home," *Australian Financial Review*, May 10, 2024, https://www.afr.com/politics/federal/trade-partners-applaud-gas-certainty-trouble-brews-for-labor-at-home-20240510-p5jclk.

Various 'securities' influencing Australia's current energy and climate policy debate

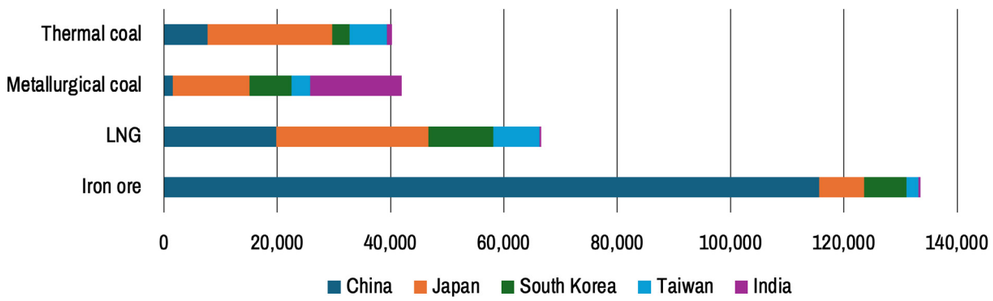
Australia's current energy and climate policy debate has strong interactions with 'traditional' security and several 'non-traditional' securities, specifically energy security, climate security, and economic security. **Traditional security** concerns identifying and responding to military threats from formal state-armed forces. **Non-traditional security** concerns numerous other violent and non-violent threats.[19]

There is no universally accepted **energy security** definition, but a widely used formulation is the International Energy Agency's (IEA) "uninterrupted availability of energy sources at an affordable price". The IEA also distinguishes between short- and long-term energy security. The former concerns "ensuring the ability of the energy system to react promptly to sudden changes in the supply-demand balance" and the latter concerns "making timely investments to supply energy in line with economic developments and environmental needs".[20]

Climate security is also a contested term. A United Nations Development Programme definition refers to identifying and responding to impacts on peace and security from the climate crisis. This incorporates increased risk of conflict through population displacement and resource competition and more general threats to livelihoods.[21]

Economic security has risen to the international policy forefront in the past few years. Consensus around what it entails is still coalescing. At its core is, however, rising government willingness to engage in economic planning for strategic advantage or defence. This reflects challenges arising from previous *laissez faire* policies, include supply chain vulnerabilities, authoritarian countries weaponising liberal interdependencies, and markets failing to meet challenges such as climate challenge.[22]

Major markets for Australia's leading commodity exports (value, $m)



Source: Author's calculations from DISER (2024)[23]

Asian critics have, however, essentially argued Australia should remain a fossil fuel-based energy superpower, providing gas, and even coal, exports without any indicated end date. They have claimed continued fossil fuel provision is key to maintaining their own energy security and related regional securities. The CEO of Japanese gas and LNG company Inpex, Takayuki Ueda, said in May 2023 that Australia played a "vitally important role" providing energy security for "Asian friends and allies".[24] If Australia stopped performing this role, Ueda said it would increase opportunities for authoritarian energy providers and "threaten the rules-based international order essential to the peace, stability and prosperity of the region, if not the world."[25]

Even if they were true, Ueda's claims would ignore vast strategic downsides tied to Australia's existing fossil superpower model. Australian policymakers have long sought to protect the economic and strategic benefits they associate with fossil fuels.[ii] They have simultaneously ignored the climate-linked domestic costs, economic or otherwise,[iii] that result from Australians being the second-largest exporters of fossil fuel emissions and third-highest per capita domestic emitters.[26]

Under international climate agreements such as Paris, Australia is not responsible for emissions generated offshore by its exports.[27] Yet climate change, and Australia's perceived role in perpetuating it, still bring unavoidably steep challenges, particularly in a strategic and international sense. Global warming is known to increase conflict risks in countries with large populations and low human development levels, including many in Australia's Asian backyard.[28]

As a fossil fuel superpower, Australia has also struggled to manage security challenges when dealing with more climate-conscious partners, particularly in the Pacific. Minister for Foreign Affairs Penny Wong has said Australia is in a "permanent contest" with China in the Pacific.[29] Yet climate concerns have lessened Australia's diplomatic appeal in this region. Australia's former Coalition government unveiled the Australian Infrastructure Financing Facility for the Pacific in 2019, for example, at least partly in response to China's Belt and Road Initiative.[30] But the same Coalition government helped water down climate commitments in the Pacific Islands Forum (PIF) grouping in the very same year.[31] This led Tuvaluan Prime Minister Enele Sopoaga to note that, where Australian Prime Minister Scott Morrison was "concerned about saving your economy…I am concerned about saving my people."[32] Sopoaga's comments echoed regular Pacific declarations, such as the PIF's 2018 *Boe Declaration on Regional Security*, which reaffirmed that "climate change remains the single greatest threat to the livelihoods, security and wellbeing" of Pacific peoples.[33]

ii Australian officials have argued from the mid-1990s that international climate commitments should respect the "special needs of fossil-fuel dependent economies", fearing the "changing the nature and pattern of domestic energy use and/or changing the world market for energy for Australian exporters." These efforts have lowered climate ambition at a global level. Sources:Matt McDonald, "Fair Weather Friend? Ethics and Australia's Approach to Global Climate Change," *Australian Journal of Politics and History* 51, no. 2 (June 2005): 216–34, https://doi.org/10.1111/j.1467-8497.2005.00371.x; Marc Hudson, "Cabinet Papers 1994-95: Keating's Climate Policy Grapples Sound Eerily Familiar," The Conversation, December 31, 2017, http://theconversation.com/cabinet-papers-1994-95-keatings-climate-policy-grapples-sound-eerily-familiar-89490.; Marc Hudson (2018), 'Cabinet papers 1994-95: Keating's climate policy grapples sound eerily familiar', The Conversation, 1 January.

iii The global warming-fuelled 'Black Summer' bushfires of 2019-2020 caused an estimated A$100 billion damage to numerous industries. They directly killed 33 people and 417 more from smoke-induced health impacts, and destroyed more than 3000 houses and vast biodiversity. A 2021 report estimated future climate-related disasters will cost Australia A$73 billion a year by 2060, even under a low emissions scenario. Sources: Christopher R. Dickman, "Ecological Consequences of Australia's 'Black Summer' Bushfires: Managing for Recovery," *Integrated Environmental Assessment and Management* 17, no. 6 (2021): 1162–67, https://doi.org/10.1002/ieam.4496; "National Museum of Australia - Black Saturday Bushfires" (National Museum of Australia), https://www.nma.gov.au/defining-moments/resources/black-saturday-bushfires; Australian Business Roundtable for, Disaster Resilience & Safer Communities, and Australian Business Roundtable for, "Special Report: Update to the Economic Costs of Natural Disasters in Australia," 2021, https://www.preventionweb.net/publication/special-report-update-economic-costs-natural-disasters-australia

Australia supported the *Boe Declaration*, but this did not noticeably shift its economic or strategic considerations. There was, however, promise at the start of the first Albanese term that the renewable superpower vision might help Australia resolve its Pacific climate tensions. Australia at least changed its tone in this respect. A multi-minister statement issued ahead of the COP27 climate meeting hailed Australia's "renewed climate leadership" and "potential as a renewable energy superpower", while acknowledging "nothing is more central to the security and economies of the Pacific than climate change".[34] It also celebrated Australia's bid to work with the Pacific to jointly host 2026's COP31 climate meeting, to highlight the "impact of climate change on the region, accelerate global action and harness the economic opportunities from the clean energy transition."[35]

Australia meaningfully improving Pacific relations will, however, require a larger and more consistent transformation. It may ultimately mean fully supporting ambitious Pacific demands for Paris-aligned policies such as those in the *Port Vila Call for A Just Transition to a Fossil Fuel-Free Pacific*.[36] This 2023 declaration by six Pacific countries calls for a phaseout of fossil fuels, including through a fossil fuel non-proliferation treaty.

Australia's Minister for Climate Change and Energy, Chris Bowen, did argue at COP28 that a "phase-out of fossil fuels was Australia's economic opportunity as a renewable energy superpower".[37] But Australia is currently caught between seeking to retain its fossil fuel energy superpower status and pursuing its renewable superpower transformation. This was evident in the *Future Made in Australi*a package being immediately preceded by a new *Future Gas Strategy*, which pledged regulatory support for this planet-warming fuel "to 2050 and beyond".[38] Australia, moreover, continues to approve coal and oil and gas projects and has "no national policy framework aiming to restrict fossil fuel exploration, production, or infrastructure development".[39] One of the Albanese government's first decisions after regaining power in 2025 was to approve extension of the massive North West Shelf LNG project, to 2070, well beyond the national 2050 net zero emissions target.[40]

Where once Australian policymakers uniformly claimed economic justifications for continued fossil fuel exploitation, strategic arguments are now more prominent. Specifically, policymakers have argued the country must trade-off provision of Pacific climate security for provision of Asian energy security. In November 2023, for example, Australia's Ambassador for Climate Change Kristen Tilley said Australia could not fully support a Port Vila Call-like fossil fuel phaseout without endangering the "vitally important" energy security of countries such as Japan and Korea.[41] Yet analysis in the next section and remainder of this report discredits this viewpoint.

Investigating Australia's New Security Landscape

It is necessary to properly interrogate the Pacific climate and Asian energy security concerns that continue to influence Australia's policy debate. This is because governments and other actors define and contextualise traditional and non-traditional securities in different ways. The concept of 'securitisation' in International Relations theory describes how new issues are brought into the realm of security, which, at its most basic, concerns identifying and responding to threats.[42] This process can be open to abuse. Actors might misrepresent threats to gain policy concessions. Certain, inherently subjective, views can also dominate debates, even when not in all parties' interests.

Starting with the Pacific, it is clear that many policymakers accept that sustained Australian fossil fuel production, whether for Asian energy security or other reasons, will incur trade-offs with climate security. Australia's desire to improve Pacific relations through the prism of its renewable superpower vision, as in the statement issued ahead of the COP27 meeting, is evidence for this.[43]

Pacific conceptions of climate security are in turn quite clearly aligned with international climate science consensus. This consensus finds that sustained fossil fuel use will exacerbate security threats such as those identified in the *Boe Declaration*. The Intergovernmental Panel on Climate Change (IPCC) notes the dramatic increases likely even between the high and low ambition Paris warming limit goals (1.5°C and 2°C, respectively).

Further from this, Pacific calls for phasing out fossil fuels reflect best-informed Paris-aligned policy advice. The IPCC's Sixth Assessment Report assesses that limiting warming to 2°C or below requires not burning 80% of coal, 50% of gas, and 30% of oil reserves.[44] The International Energy Agency's (IEA) most recent 2050 roadmap for meeting the 1.5°C goal (the *Net Zero Emissions*, or NZE, scenario) requires "no new long-lead time upstream oil and gas projects" and no "new coal mines, mine extensions, or new unabated coal plants."[45] Two-thirds of total energy supply would come from renewables (wind, solar, bioenergy, geothermal, and hydro) by 2050 under the NZE scenario.[46]

Whether Asia's energy security conception remains similarly empirically grounded is largely untested. None of the *Future Gas Strategy*'s 19 distinct energy security references offers a clear definition of this term in the Australian context, for example.[47] This is despite energy security being open to significant interpretation. There has also been insignificant interrogation of key arguments linked to Asian energy security. The remainder of this section identifies and critically assesses four key claims that have most influenced recent debate. It particularly analyses Japanese and, to a lesser extent, Korean arguments, which have dominated discussions.

Anticipated impacts of differing average temperature rises

Measure	1.5°C	2°C	Increase at 2°C
Extreme heat (percentage of global population exposed to severe heat at least once every five years)	14%	37%	2.6 x worse
Sea-ice free Arctic (number of ice-free summers)	At least once every 100 years	At least once every 10 years	10 x worse
Sea-level rise (amount of sea level rise by 2100)	0.4m	0.46m	0.06m more
Species loss: vertebrates (percentage that lose at least half their range)	4%	8%	2 x worse
Species loss: plants (percentage that lose at least half their range)	8%	16%	2 x worse
Species loss: insects (percentage that lose at least half their range)	6%	18%	3 x worse
Ecosystems (percentage of Earth's land area where ecosystems will shift to a new biome)	7%	13%	1.86 x worse
Permafrost (area of Arctic permafrost that will thaw)	4.8 million km^2	6.6 million km^2	38% worse
Crop yields (percentage reduction in maize harvest in tropics)	3%	7%	2.3 x worse
Coral reefs (percentage further decline in coral reefs)	70-90%	99%	Up to 29% worse
Fisheries (volume of decline in marine fisheries)	1.5 million tonnes	3 million tonnes	2 x worse

Source: Data from World Resources Institute[48]

FOSSIL FUEL ENERGY SECURITY IS NOT STRATEGICALLY VITAL TO ASIA

Australia's Ambassador for Climate Change, Kristin Tilley, has argued that Asian countries, particularly Japan and Korea, have strategically vital energy security concerns.[49] On the one hand, this claim can be made of any country. On the other, it is certainly true that Japanese and Korean officials and policy documents do place above average emphasis on energy security. *Japan's Green Transformation (GX)*, for example, is nominally a climate strategy but notes that a "stable supply of inexpensive energy…is Japan's top priority".[50]

It is also true that Japan and Korea face obvious challenges in procuring sufficient volumes of affordable energy. Imports meet about 90% of Japan's and 85% of Korea's energy demand.[51] Both countries' concerns around trade weaponisation, other supply chain disruption, and general exposure to volatile markets and prices logically also grew following Russia's full-scale invasion of Ukraine.

Australia's Minister Foreign Affairs Penny Wong has also confirmed the strategic importance Australia attaches to Asia's energy security claims. In November 2023, Minster Wong argued Australia should pass new carbon capture and storage (CCS) legislation—an issue normally well outside her portfolio—on the grounds that "those who care about national security" should support its passage because Japan and Korea wanted it.[52] (Japan and Korea had argued CCS was critical to meeting fresh Safeguard Mechanism carbon neutrality requirements on new gas fields.)

Yet inspection of Japanese and Korean complaints reveals that what they consider strategically vital is not energy security per se, but a conception of energy security that requires sustained fossil fuel provision. Former Japanese ambassador to Australia Shingo Yamagami argued in May 2023, for example, that it was "hard to imagine the neon lights of Tokyo *ever* going out", but this would happen if Australia stopped producing fossil resources such as coal and gas.[53] This was despite the need for the long-term energy security strategies of countries such as Japan to, per the IEA, make "timely investments to supply energy in line with economic developments and environmental needs".

CONCLUSION:

The perception of Australia facing unavoidable trade-offs between providing Asian energy security and Pacific climate security stems from specific demands for long-term fossil fuel security, led by Japanese and Korean concerns. This leaves the door open for Australia to provide both Asian energy security and Pacific climate security if this conception could change.

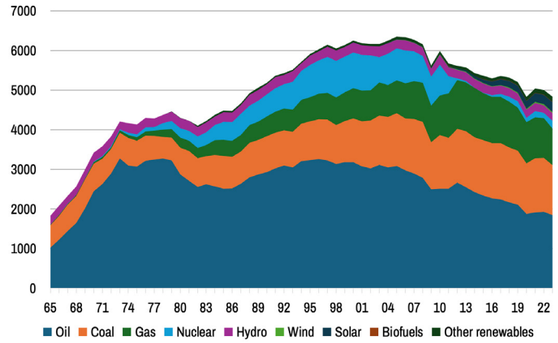
ASIAN ENERGY SECURITY DOES NOT REQUIRE SUSTAINED AUSTRALIAN FOSSIL FUEL PRODUCTION

There are in turn strong reasons to doubt the more specific claim that Asian countries require long-term fossil fuel-based energy security. The prominent notion that Japan specifically needs Australian gas—as presented by the likes of former Japanese ambassador to Australia, Shingo Yamagami[54]—has been thoroughly debunked. A May 2024 Institute for Energy Economics and Financial Analysis (IEEFA) analysis found Japan's LNG demand dropped 25% between 2014 and 2023 and would fall a further 25% by 2030.[55] IEEFA also found Japanese LNG buyers were now selling about as much gas as they sourced from Australia to third countries, mainly in Southeast Asia.

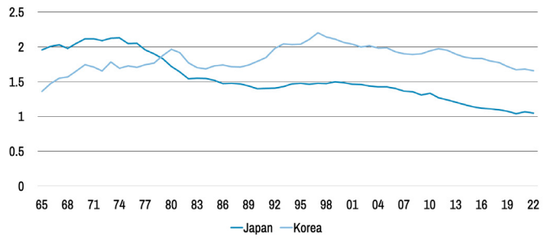
There is in turn a more general disconnection between Japan's prominent role in Australia's recent debate and what should be Japan's own progressively diminishing energy security concerns. Japan's consumption of all fossil fuels has categorically peaked, along with the energy intensity of its economy (so too have its associated emissions). This partially reflects strong energy efficiency commitments and, more substantially, its structurally maturing economy and population.[56]

Korea might claim to have more profound fossil fuel-linked energy security considerations, relative to its economic size. Yet there is also a sense of incongruousness in Korea's energy usage profile. This should indeed more closely resemble Japan's, given their similar levels of economic maturity. One explanation for why it does not is the fact that Korea, through deliberate policy choices, continues to sustain the OECD's highest industrial energy intensity.[57] This mutable characteristic is a key factor sustaining its professed need for long-term fossil fuel security.

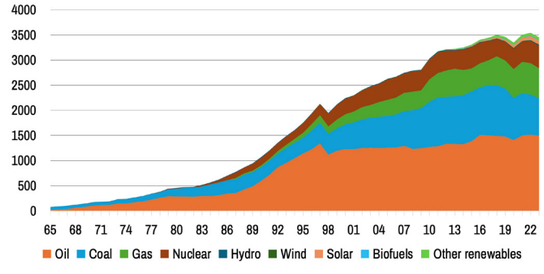
Energy consumption by source – Japan (Twh)



Energy intensity – Japan and Korea (Kwh/$ of GDP)



Energy consumption by source – Korea (Twh)



Source: Data from Ritchie et al (2022)[58]

Both Japan and Korea should move faster on eliminating their own fossil fuel demand for climate reasons alone. International norms dictate that developed countries should move faster than developing countries on reaching net zero emissions.[59] Both Japan and Korea also make flawed energy security arguments for retaining the status quo.

One factor Japanese and Korean officials claim in defence of retaining fossil fuel dependencies is their constrained national energy choices. Japan has among Asia's highest existing renewables shares of electricity (about 24%) and total energy (about 13%), while Korea has much lower rates (about 10% for electricity and 5% for total energy).[60] Yet officials in both countries claim to face hard physical limits on meeting Paris-aligned guidance for more rapid acceleration.[iv]

There is some superficial evidence to back some Japanese and Korean anti-renewables arguments. A World Bank database ranks Japan 181st, and Korea 156th, of 209 countries for potential to deploy solar power, for example.[61] Yet international comparisons of renewables potential reveal little about competition between energy sources inside national borders. And, contra official arguments, independent assessments suggest greater renewables deployment could enhance rather than decrease both Japanese and Korean energy security. A 2023 US Department of Energy study found Japan could generate 90% of electricity with solar, wind, and battery storage by 2035, cutting sector emissions by 92% and costs by 6%, while nearly eliminating coal and LNG imports.[62] Another 2023 study found Korea could generate 5000Twh of electricity per year from renewables—far larger than existing fossil fuel output—and cheaper than gas.[63]

It is particularly difficult to see Japanese and Korean insistence on sustained Australia fossil fuel imports as enhancing energy security when compared with tapping cheaper domestic resources. It is true that Australia is unlikely to weaponise energy trade. Yet this will not stop other actors or forces disrupting supply chains. Nor will it reduce indirect price exposure to disruption occurring elsewhere in heavily integrated international markets.[64]

It is also difficult to see the justifications for other Japanese and Korean energy decisions supposedly taken on security grounds. Both countries seek to integrate significant hydrogen and ammonia volumes across numerous economic sectors, for example.[65] Yet producing hydrogen from renewables remains expensive, particularly in Japan and Korea. And importing it will add further costs, technical challenges, and foreign entanglements.[v]

Non-energy security concerns might thus help to further explain Japanese and Korean policies. A convincing case can be made for both countries seeing more of their *economic security* as tied to sustained provision of Australian fossil fuels. Both countries clearly value energy, and currently fossil fuel-intensive, economic and related strategic interests, even when focused on third countries.

iv The chief executive of government-aligned Institute of Energy Economics Japan think tank, Tetsuya Terazawa, has argued "Japan is not endowed with favourable wind" and its deficit of suitable land limits future solar deployment.; Former Korean President Yoon Suk Yeol has argued renewables are "too expensive" in abandoning his predecessor's target of 100% renewable power and downgrading the country's 2030 renewable target from 34% to 30%. Sources: Nithin Coca, "How Japan's Renewable Underestimates Are Impacting Asia's Energy Transition," The Japan Times, December 3, 2023, https://www.japantimes.co.jp/environment/2023/12/03/energy/japan-impact-asia-energy/; James Bowen, "The Raw Materials of Economic Security: South Korea's Evolving Energy and Critical Minerals Policies in an Era of Disruption," *Korea Policy*, January 3, 2024, https://keia.org/publication/the-raw-materials-of-economic-security-south-koreas-evolving-energy-and-critical-minerals-policies-in-an-era-of-disruption/.

v A 2022 International Renewable Energy Agency report found green hydrogen production for domestic consumption would at best cost US$2.50-$3/kg in Korea and Japan by 2050, compared with US$0.75 in more optimal locations, Australia included. Trading hydrogen is also beset by handling and storage challenges and, to use the Australian context, likely to add far more than the 10% extra cost of shipping coking coal to Asia. Sources: International Renewable Energy Agency, *Global Hydrogen Trade to Meet the 1.5°C Climate Goal Part III - Green Hydrogen Cost and Potential* (International Renewable Energy Agency IRENA, 2022); "Liebreich: The Unbearable Lightness of Hydrogen," *BloombergNEF* (blog), December 12, 2022, https://about.bnef.com/insights/clean-energy/liebreich-the-unbearable-lightness-of-hydrogen/.

Japan on-selling Australian gas to Asia was, indeed, in line with a formal 2020 government strategy calling for "Japanese companies to play a leading role in creating a larger international market that integrates strong international demand".[66] Analysts have tied such efforts to allowing Japanese companies to build LNG terminals, power plants and other infrastructure.[67] Korea's energy and nominal climate policies also still clearly seek new industrial opportunities. Seoul's existing *Hydrogen Economy Roadmap*, for example, has goals including Korea producing 6.2 million hydrogen fuel cell vehicles by 2040.[68]

Japan and Korea uniting their energy, economic, climate and other security pursuits would be beneficial if they were aligned with Australia's similar efforts under its renewable superpower vision. Yet the very same logic that underpins the renewable superpower vision appears to most challenge Japanese and Korean abilities to adapt to a net zero future. The argument popular in Australia, that renewables over fossil fuel-based economic systems can boost economic competitiveness, does not resonate in Japan and Korea. These two things are, indeed, causally related. Much industrial activity which Australia could onshore in a Paris-aligned future might come at Japanese and Korean expense.

Global renewables potential comparisons regain relevance here. Japan and Korea may mostly struggle to competitively deploy renewables relative to other countries in an *industrial* setting. Many industrial processes have acute needs for large-scale, reliable, low-cost electricity. They also use fossil fuels in chemical transformation processes, such as iron ore reduction. Adapting these to a 1.5°C-aligned future requires substituting renewable electricity for goods such as green hydrogen, for which Japan and Korea will struggle to maintain international competitiveness.

The combination of the above factors has led prominent renewable superpower proponent Ross Garnaut to write that "in a zero-carbon world economy, there would be no economic sense in aluminium or iron smelting in Japan or Korea."[69] The difficulty in challenging China's existing dominance of renewable supply chains—it holds more than 90% of solar photovoltaic manufacturing capacity, for example, and dominates battery electric vehicle (EV) value chains[70]—adds to Japanese and Korean pressures.

Some defenders of Japan's on-selling Australian gas have even freely admitted Japan was less concerned with its own energy security and more with what could be reasonably construed as economic security concerns. They argued Japan was aiming to economically profit from the process, while also rivalling China's strategically motivated energy infrastructure provision under its Belt and Road Initiative. They suggested this 'LNG diplomacy' remained an Australian security interest.[71]

CONCLUSION:

Asia, as typified by Japan and Korea, does not have unavoidable need for long-term Australian fossil fuel security. Economic security can better explain Japan- and Korea-specific calls for Australia remaining a fossil fuel superpower. Australia could enhance both regional energy and climate security if Asian countries adopted a 1.5°C-aligned conception of energy security and its ties with other securities.

ENERGY SECURITY AND ENERGY TRANSITION ARE NOT IN STRATEGIC TENSION

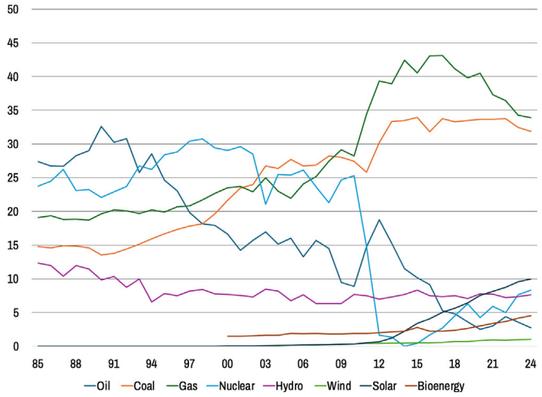
Inpex CEO Takayuki Ueda has argued that the post-Ukraine energy crisis demonstrates "how energy can be weaponised", requiring thinking about energy security in "a new and more strategic way", and meaning "today energy security rivals energy transition as a priority."[72]

These views are out of step with reality. Potential weaponisation has long preoccupied energy policymakers. Countries can and often have used energy crises to diversify energy mixes, rather than simply reprioritising energy partners. Many examples have led to simultaneous enhancement of energy security and energy transition.

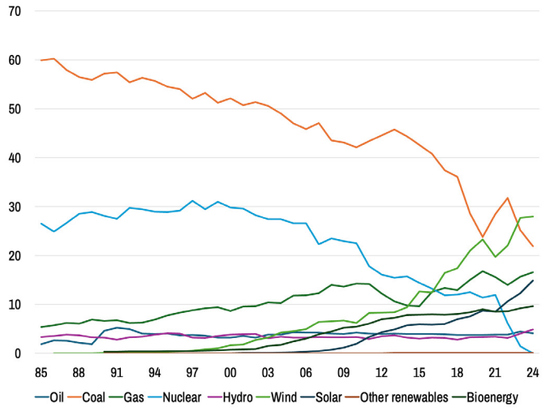
The 1973 Arab-led embargo of oil exports to the US and other countries—often described as the 'oil weapon'—led to uncomfortable new ties between advanced economy energy importers and authoritarian exporters.[73] It also saw less controversial collective energy security-enhancing arrangements, including the IEA's formation. The IEA remains primarily concerned with ensuring the energy security of its members, Australia, Japan, and Korea included. Its Net Zero Emissions Scenario illustrates how a Paris-aligned energy transition might be achieved through "an orderly transition that aims to safeguard energy security through strong coordinated policies and incentives."[74]

Energy crises make certain energies appear less secure for cost, geopolitical, environmental, and other reasons. Policy support can help shift energy mixes toward more secure alternatives. Japan rapidly diversified its electricity mix following the Fukushima nuclear disaster of 2011, which made nuclear energy unpopular, but mostly to consolidate fossil fuels and increase exposure to volatile international markets. Germany, by contrast, accelerated a nuclear phaseout but largely favoured renewables.

Share of electricity generation by source (%) – Japan



Share of electricity generation by source (%) – Germany



Source: Data from Ritchie et at (2022)[76]

Other energy decision-making notwithstanding, Germany's diminished fossil fuel dependence was a comparative asset in minimising subsequent exposure to Russian energy in the wake of its full-scale invasion of Ukraine. The EU in general also accelerated its renewables transition post-Ukraine. Many European countries face Japan and Korea-like challenges deploying renewables. Yet targeted state support, such as the €300 billion *REPowerEU* plan, helped reduce EU gas consumption by 18% between August 2022 and March 2024.[77] There is also a quite clear East Asian example of a country simultaneously enhancing energy security and energy transition in the form of China.

China's energy security-energy transition nexus

China's clean energy leadership under President Xi Jinping has strong roots in energy security concerns. China has considerable domestic fossil fuel resources. Yet rapid development in the 1980s and 90s saw oil demand quickly outplace domestic supply. China became a net oil importer in 1993 and the world's largest oil importer in 2017.[78] Growing anxiety—including awareness of how the 1970s oil shocks severely complicated US ties to the Middle East—saw China adopt a deliberate strategy of manufacturing and deploying oil substituting technologies, primarily electric vehicles and batteries.[79]

Contra Ueda's claims, Japan and Korea have themselves also always considered energy security in highly strategic terms. Both countries have used public institutions and finance to develop international resources, particularly fossil fuel, projects. Tokyo and Seoul, and indeed Beijing, contributed AUD$36.7 billion to Australian fossil fuels from 2010-2020, including AUD$28 billion for LNG.[80]

Japanese, Korean and other actors could easily use their strategic toolkits to remove perceived barriers to simultaneous achievement of energy security and energy transition if they choose to. Others, such as China and Europe, have done this, particularly in response to energy crises or recognised energy security threats. Currently, however, Japan and Korea are widening the gap between the parallel achievement of energy transition and energy security.

CONCLUSION:

Energy transition and energy security are not in tension. They can be mutually reinforcing, particularly in post-crisis energy markets such as the present one. Australia, as a renewable superpower, could help willing partners realise these benefits.

From Fossil Fuel Security to Green Security

AUSTRALIAN FOSSIL FUEL SECURITY WILL NOT ENHANCE ASIA'S ENERGY TRANSITION

Australia's Minister for Resources Madeleine King wrote in the *Future Gas Strategy* that Australia's "trading partners are relying on Australian gas to transition their economies to net zero."[81] Yet most associated claims lack sufficient evidence. The gas strategy's climate arguments are, for example, partly based on anticipated future demand for gas in energy transition-linked applications such as displacing coal, firming renewables, and processing energy transition goods. But it provides no equivalent assessment of emissions reductions expected from these, or significant consideration of policies to reduce gas demand. An energy pathway that promotes long-term fossil fuel security is, moreover, in obvious tension with Paris-aligned guidance from the Intergovernmental Panel on Climate Change and International Energy Agency's Net Zero Emissions Scenario.

Many related claims reveal obvious contradictions. As noted above, Ueda argued that energy security and energy transition are in tension. Yet he simultaneously argued that Australian gas security could displace Asian coal and thus enhance the energy transition. Former ambassador Yamagami also called for sustained supply of coal—which Japan uses for both electricity and industrial applications—alongside gas, which undercut the claims that gas can displace coal.[82]

The emissions implications of Australian gas displacing coal in Asia would already be doubtful if assessed on a whole-of-supply chain basis.[83] There is, in any event, no conclusive evidence this occurs. Industry-linked research even refutes it; a 2019 report commissioned by gas and LNG producer Woodside found increased Australian LNG to Asia could displace renewables, prolong coal use, and increase emissions without a global carbon price.[84]

Government interventions by Japan, Korea, and others can also artificially sustain fossil fuel utilisation at the expense of renewables. Tokyo's Asia Zero Emissions Community (AZEC)—which includes Australia alongside most Association of Southeast Asian Nations countries—is a major conduit for financial aid that sustains regional use of gas and fossil fuel-sustaining technologies, such as carbon capture and storage (CCS).[85] It also provides policy advice; the Japan International Cooperation Agency and several Japanese companies are currently preparing an electricity sector masterplan for Indonesia, and have already argued that Indonesia should adopt more gas and CCS within this.[86]

A related claim, made by Ueda and Australian media, among others, is that Australia's sustained fossil fuel supply can ensure it remains a trusted destination for Asian investment in greener sectors.[87] But, as outlined above, Japanese and Korean interests appear wedded to non-Paris aligned energy transition thinking. They back this with strong state support at home and, more concerningly, abroad. There is thus no guarantee that Australia's Asian partners might pivot towards 1.5C- aligned investments. Indeed there is strong reason to believe that Australia providing long-term fossil fuel security will delay this achievement. It could also help frustrate renewables-linked market creation in broader Asia.

CONCLUSION:

There is no evidence that Australia's fossil superpower role can enhance Asia's energy transition and significant reason to doubt this. Australia's renewable superpower role has more obvious ability to advance Asia's energy transition.

Leaders in some of Australia's Asian energy and broader strategic partners, led by Japan, clearly believe that maintaining energy security and related securities—traditional, economic, and even climate—depend on maintaining 1.5°C-unaligned energy and economic systems. Conversely, they hold that renewables-dominated energy and economic systems threaten these securities.

Strong public-private integration tied to this rigid strategic thinking compounds the challenge it poses to Australia's fossil-to-renewable superpower transformation. When releasing the *Future Gas Strategy*, for example, Prime Minister Albanese promised not "a single government dollar" would be spent on gas in line with its regulatory pledges.[88] But Canberra does not apply the same standards to its often better-resourced partners. Shortly after the gas strategy was announced, the Japan Bank for International Cooperation announced a AUD$1.5 billion loan for Japanese companies engaged in Woodside's Scarborough Western Australian LNG project, for example.[89]

Australia's third country engagements with Japan in particular, mainly in Southeast Asia's developing economies, produce similarly misaligned interests. Australia has established numerous Southeast Asian partnerships offering much-needed finance and policy support to the pursuit of renewables-based energy and economic pathways. These are consistent with Australia joining the international Clean Energy Transition Partnership (CETP) in late 2023, which committed it to end support for international fossil fuels and increase support for Paris-aligned international energy and economic pathways.[90] However, Australia simultaneously participates in Japan's AZEC, which supports Southeast Asia's adoption of fossil fuel-sustaining systems.

A uniformly fossil fuel-informed security worldview is also far from coherent and convincing. It most obviously fails on the 1.5°C- and Pacific-aligned climate security front. It thus brings traditional security costs through increased conflict risk and more challenging regional partnership-formation, as outlined above. It in turn ignores the degree to which most countries might increasingly maintain and even enhance their energy and economic security in legitimately climate security-enhancing, renewables-dominated pathways.

Australia would thus be better-placed adopting and backing an alternative conception of what might be called 'green security'. This would recognise that maintaining and even enhancing energy and related securities is possible in a 1.5°C-aligned future. Australia could even take inspiration from Japan and Korea's strategies in this respect, though in pursuit of alternative outcomes.

Australia promoting renewable security would need to incorporate convincing other countries, even the likes of Japan and Korea themselves, of the need to also shift from fossil-informed security thinking. This would essentially invert the role that Japan, Korea, and some other Asian countries have played in frustrating Australia's renewable superpower vision.

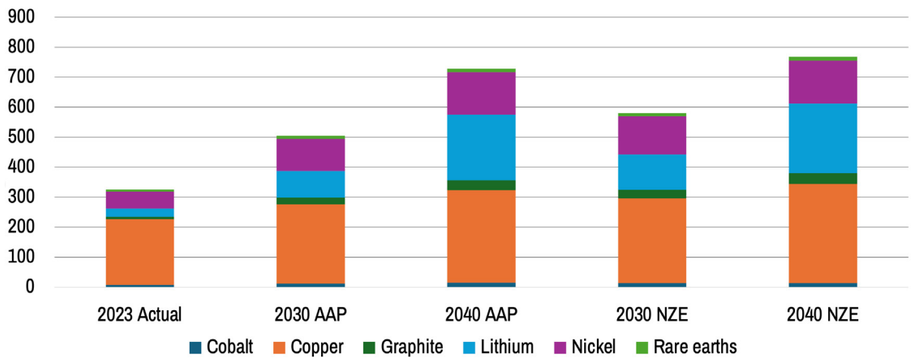
Australia's Southeast Asian renewable diplomacy

The $2 billion **Southeast Asia Investment Financing Facility** supports regional energy transition and infrastructure development. The $10 million **Climate and Clean Energy Window** builds regional capacity to respond to climate change and accelerate the clean energy transformation.[91]

The $200 million **Australia-Indonesia Climate and Infrastructure Partnership** encourages investment in Indonesia's energy transition through policy and regulatory reform; finance for small- and medium-sized enterprises and larger-scale infrastructure projects; and promoting a just transition. Australia and Indonesia also have **memorandum of understanding for cooperation in the electric vehicle ecosystem**.[92]

The **Singapore-Australia Green Economy Agreement** promotes trade in environmental goods and services, shipping industry decarbonisation, small- and medium-sized enterprises in green sectors; sustainable finance and green investment; building green skills and workforces; and support cross-border electricity trade.[93]

Demand projections for select critical minerals under the International Energy Agency's Announced Pledges vs Net Zero Emissions scenarios



Steel and aluminium net zero milestones (International Energy Agency Net Zero Emissions Scenario)

Milestones		2022	2030	2035	2050
Steel					
Production (crude steel, Mt)		1880	1970	1970	1960
Share of scrap in metallic inputs		33%	38%	40%	48%
Share of near zero emission iron production	Total	0%	8%	27%	95%
	CCUS-equipped	0%	3%	10%	37%
	Electrolytic hydrogen-based	0%	5%	15%	44%
	Iron ore electrolysis	0%	0%	2%	14%
CO2 captured (Mt CO2)		1	27	131	399
Low-emissions hydrogen demand (Mt)		0	6	17	41
Aluminium					
Production (Mt)		108	120	128	146
Share of secondary production		36%	42%	44%	56%
Share of near zero emission primary aluminium production		0%	7%	19%	96%
Share of low-emissions thermal energy in alumina production		0%	16%	39%	99%

Elements of Green Security

There is strong empirical backing for the green security concept and its various components. First, international scientific and policy consensus supports a view that a Paris-aligned renewables-led transformation of fossil-based energy and economic systems would improve **climate security**.

Fossil fuel-specific dynamics have also quite clearly been responsible for the most severe erosion of **energy security**, including following the Ukraine crisis and 1970s Arab oil embargo. Most energy security challenges have resulted from the uneven distribution of the most affordably developed reserves of overconsumed fossil fuels, as well as authoritarian countries' particularly strong levels of influence on fossil fuel markets. These dynamics have, indeed, even caused fossil fuel rich Australia energy security challenges. Australia still imports almost three-quarters of its oil products and about two-thirds of crude feedstock to its two remaining refineries.[94] The vulnerability of the sea lanes through which this oil pass causes major national security anxiety.[95] Australia's heavy exposure to volatile international markets, even for gas and coal, also creates challenges, as Australia's post-Ukraine policies capping prices noted above can attest.

Material erosion of these fossil fuel dynamics, including through enhanced renewables deployment, can enhance energy security. Renewables also offer discrete energy security advantages through enhanced domestic availability and often affordability. Indeed, Minister Bowen has noted that renewables provide Australia a 'strategic advantage' on energy security.[96] As already observed, Europe, China and even Japan and Korea have or could also improve their energy security via expedited renewables take-up. The International Energy Agency (IEA) too, has observed that post-Ukraine energy security concerns have been a major driver of recent energy transition progress globally.[97]

New renewables-linked energy security vulnerabilities certainly exist. China's intense control of clean energy technologies and associated minerals supply chains already concerns many countries.[98] Yet disruption of supply chains for recyclable technologies and even minerals will also have far less impact than fossil fuels consumed in much larger and continuously depleted volumes. There is also no unalterable geological reason why any country will always dominate on renewables. Policy interventions, such as subsidies and facilitation of easy finance, have been the decisive factor in China's strength.[99]

China's renewables interests are, in turn, intimately linked to its own **economic security**, which also provides lessons for other countries. Clean energy sectors contributed a record US$1.6 trillion to the Chinese economy in 2023 as fossil fuel sectors such as coal significantly diminished in importance.[100] China has also advanced its more strategic interests via renewables as its presence in these markets, and global demand for them has grown. A February 2024 assessment found that the Belt and Road Initiative's 2023 engagement was the greenest on record in both absolute and relative terms, driven by engagement in areas such as solar and electric vehicle value chains.[101]

Australia can increasingly find its own economic security through its renewables superpower vision. Economic and related strategic opportunities in areas of national strength will rapidly expand under a 1.5°C-aligned pathway. The market size for minerals required for the energy transition doubles between now and 2040 under the IEA's Net Zero Emissions guidance. Australia could also benefit from rapid progress in decarbonising industrial sectors such as steel and aluminium. Modelling produced in 2023 for a consortium of business, union, and conservation interests found green metal exports could alone contribute A$20-25 billion in gross value added per annum, and 100,000 additional jobs, to the Australian economy by 2040.[102]

In attaining economic security via renewables, Australia could obviously enhance climate security. It could also enhance **traditional security**. This includes reducing conflict risks and improving engagement with regions such as the Pacific. Australia's need for climate credibility here is magnified by its perceived major regional rival, China, shifting more in a renewables direction.

Also on the traditional security-linked front, Australia's 2023 Defence Strategic Review argued that the Australian Defence Force in particular "should accelerate its transition to clean energy to increase our national resilience", with particular reference to insecure oil supply lines.[103] This is just one maritime security-linked concern that might be alleviated should the world stop shipping fossil fuels relative to what will inevitably be much smaller volumes of transition minerals and technologies.

Achieving Green Security

Australia's renewable superpower model can still allow it to provide for the energy security of its trading partners and derive economic and strategic advantages from doing so. Transitioning Australia's fossil fuel superpower relationships will, however, not be simple, as ties with Japan and Korea attest. Many challenges arise from the shifting, indirect, nature of energy security provision via renewables, and how this interacts with partnering countries' economic security concerns.

In areas where Japan and Korea have sought to move away from fossil fuels, they have still exhibited significant path-dependency. This includes seeking to largely import hydrogen or raw critical minerals from Australia as inputs to their own industrial sectors. Yet shifting techno-economic considerations in renewables- versus fossil fuel-based systems mean Australia has more incentive, and potential, to ship higher value-added energy goods to such countries. Australia's green iron and steel opportunity best illustrates how these dynamics intersect.

Thankfully, there does appear to be dawning Asian realisation of the unavoidable need for disruption. Korea's leading steelmaker Posco is, for example, considering a A$40b investment in Western Australia's Pilbara iron ore mining heartland, including A$28b for green hydrogen and related A$12b plans for green iron production and export.[104]

Ensuring this and other 1.5°C-aligned Australian partnerships involving Japan and Korea progress is critical. But, if these prove elusive, Australia should remain open to strategic energy partnerships elsewhere. Australia should continue to consider energy and climate cooperation with China – a more established renewable superpower. This would go against current Australian strategic thinking trendlines. Yet it would recognise, as the Pacific does, the gravity of climate security threats.

AUSTRALIA AND ASIA'S GREEN IRON AND STEEL OPPORTUNITY

Australia has potential to onshore significant ironmaking—the most energy-intensive stage of steelmaking—from Asia under green iron and steel pathways.

Producing green iron and steel involves different technologies and material inputs than existing brown pathways. The most technologically viable solutions currently use green hydrogen in place of coal for ironmaking and renewably powered electricity for steelmaking. These changes provide Australia with newfound comparative advantages.

Japan and Korea could import Australian green iron in place of current imports of Australian iron ore and metallurgical coal or, indeed, prospective Australian iron ore and green hydrogen. This would indirectly increase Japanese and Korean energy security levels, by offshoring energy-intensive activity. But both countries would need to contend with the economic security considerations of rebalancing their economies in this manner. A mitigating factor is, however, that each could minimise employment losses, because up to 90% of jobs in steelmaking are downstream from ironmaking.[105]

Taken another way, Japan and Korea could avoid diminished competitiveness that might result from seeking to retain a full green iron and steel value chain. Both would certainly be better placed working with Australia than seeking to delay the green iron and steel transformation in its totality.

Australia should consistently promote the green security concept and its various elements as a first step towards achieving it. Australia has a key Pacific-linked opportunity to do so. Security scholars Rebecca Strating and Joanne Wallis have argued that Australia meeting its Boe Declaration commitments means producing a new national security strategy.[106]

Highlighting green security concepts and concerns within this would also be consistent with the Boe Declaration's efforts to expand the definition of security, including illustrating links between traditional and non-traditional securities.

Australia should also encourage a better-informed conversation of various security threats, and optimal responses to them, in other channels. The federal government could specifically do this by releasing an Office of National Intelligence assessment of climate-linked security threats, which was completed in 2022.[107]

Australia should in turn prioritise support to developing its renewable superpower model and the energy security this can help provide. It should simultaneously wind back support to its fossil fuel-based superpower model and the energy security this can provide. Superpower Institute heads Ross Garnaut and Rodd Sims have proposed a mechanism that might aid this process. Their 'carbon solutions levy' could significantly raise the costs, and thus the perceived insecurity, of Australian fossil fuels. It could also raise an estimated A$100 billion in its first year to support renewable superpower industries and the perceived security of Australian renewable goods.[108]

Australia should also remove existing domestic support to fossil fuels and seek to ensure international governments follow suit. This should include adopting formal rules barring public institutions in Japan, Korea, or elsewhere from financially supporting Australian fossil fuels. Australia should also withdraw from processes that support such activities in third countries, including Japan's Asia Zero Emissions Community. It should comply with its Clean Energy Transition Partnership (CETP) obligations, to encourage currently non-signatory countries—which include Japan, Korea, and also China—to pivot public support to Paris-aligned interests.

Australia should also better internationally signpost its shifting economic and strategic considerations. It could provide assurances to its trading partners that it will only provide short-term fossil-based energy security and transition to renewable-based energy security in the long-term. Australia should develop export-focused coal and gas phase out roadmaps that are based on Intergovernmental Panel on Climate Change and International Energy Agency guidance. It should also support Pacific fossil fuel phaseout demands, such as the *Port Vila Call*.[109]

These priorities should be pursued in existing and new diplomatic channels. Australia must particularly focus on reinventing energy and climate relations with Japan and Korea. It should also consider introducing new economic architecture to help deliver its renewable superpower vision. A proposal for a 'clean commodities trading company' regionally integrated with Asia has significant promise.[110] It would see the governments of Australian and its trading partners create much-needed early demand for green metals and other goods, to accelerate market development.

Australia could also cooperate more closely with the Pacific to jointly promote the green security concept in Asia. Australia and the Pacific could seek international recognition of this concept and its elements through a successful COP31 bid. They might similarly promote green security in Southeast Asia, as a critical theatre for climate and energy decision-making. This could include organising joint Pacific Islands Forum-Association of Southeast Asian Nations energy and climate dialogues. Pacific countries could also be important partners to Australia on pressuring Japan and Korea to embrace renewable security thinking, including signing up to the CETP commitments.

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