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Green Energy Statecraft for Comprehensive National Security

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Research and analysis have highlighted the potential national security benefits of the green energy transition in terms of its economic, social, environmental and geostrategic payoffs. But these components have not been integrated in a strategic new approach to energy transition governance. We call this new approach Green Energy Statecraft, offering it as an 'ideal type' conceptual framework for researchers and national decision makers alike to better develop ambitious, strategic and effective green energy policy.

The green energy transition has profound implications for national security, comprehensively conceived.[1] States with the ambition and ability to govern the shift will reap significant energy, economic, social, environmental, and military security rewards. These multifaceted national security gains will be larger than those accruing from a less integrated, non-strategic governance approach. The latter would substantially diminish the likelihood of achieving a successful energy transition – the obvious and ultimate imperative for all nations. A non-strategic approach would also jeopardise related objectives like the achievement of 'green energy superpower' status, now the stated ambition of several national governments.[2]

A crucial new question thus demands attention: what kind of governance approach enables policymakers to expedite the green transition and advance a comprehensive security-enhancing agenda?

Existing research has explored different dimensions of energy transition governance and how it might help or hinder certain aspects of national security – be it energy, economic, social, environmental, or military – typically leveraging (sub)disciplinary specialisation.[3] What is lacking, however, is a holistic approach to analysing and evaluating national energy transition governance, one that integrates and extends these insights. A holistic approach is crucial because national policymakers must grapple with pressing energy, economic, social, environmental and military security challenges simultaneously. This complexity is captured in the language of "polycrisis" – a term widely invoked to indicate the interwoven and mutually reinforcing nature of multiple contemporaneous security challenges.[4]

Today's polycrisis can elicit reactive, confounding and contradictory policy responses. For example, we currently see countries from China to the United States and Australia releasing ambitious green industry-building strategies while continuing to support the expansion of fossil fuel industries through subsidies and other measures.[5] But amongst such contradictions, in some national contexts we also observe the elements of a more coherent approach to governing the green transition – one that can capitalise on the unavoidable energy shift to address pressing energy, economic, social, political, environmental and military security problems simultaneously.[6] We call this approach 'Green Energy Statecraft'.[7]

In essence, Green Energy Statecraft involves national governments adopting a highly ambitious and strategic role in guiding, shaping, and accelerating the green transition to advance a comprehensive national security-enhancing agenda. Our aim here is to identify what we see as the essential features of this new statecraft-in-the-making. We offer it as a map to assist decision makers and researchers in their quest to both conceptualise the governance challenges and changes taking place, and to assess progress towards a more coherent, goal-oriented approach to governing the green transition and maximising its multifaceted and connected national security payoffs.

THE GREEN ENERGY STATECRAFT IDEAL TYPE

Our approach is informed by the Weberian method of 'ideal type'-building deployed by social scientists to analyse a range of socio-political processes and developments, from the emergence of capitalism to the success or failure of modern bureaucracies.[8] Ideal types are developed by rigorously and systematically observing an empirical phenomenon, paying particular attention to the goal-orientation or 'means-ends' logic driving the key social agents involved.[9] The essential characteristics of the phenomenon in question – and the logical relationships between them – are thereby identified and accentuated. The ideal type is an abstract model against which actually-existing empirical cases can be compared, contrasted and evaluated, while recognising that confronting the model with reality necessitates its continuous refinement.[10]

Our Green Energy Statecraft ideal type is an *analytical device* from which we can learn much about the governance challenges and opportunities required by the green energy shift. It allows us to examine how existing institutional and policy reforms diverge from and converge on Green Energy Statecraft in different national contexts.

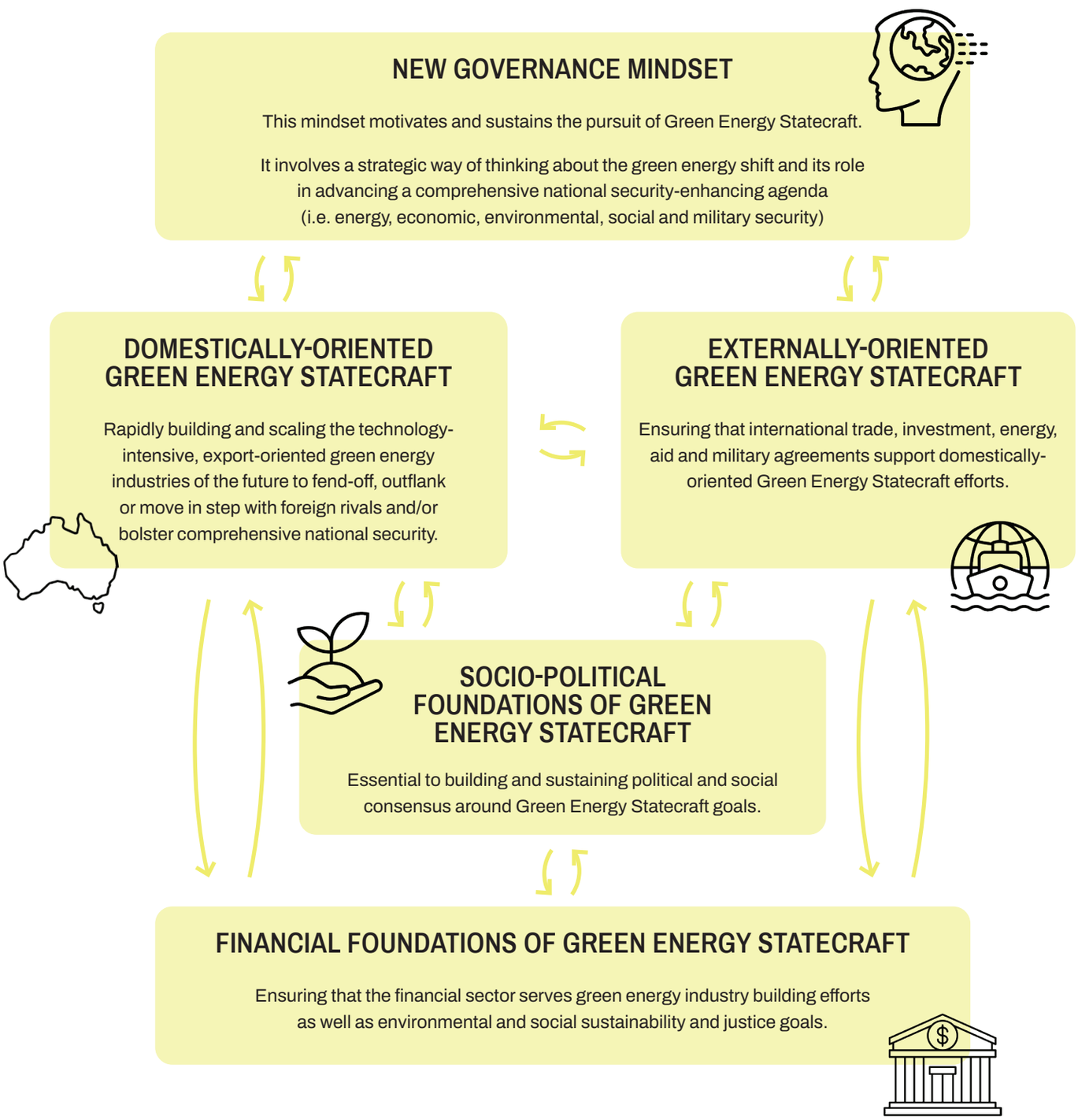
To construct our ideal type we have relied on extensive empirical observations of Northeast Asia's highly strategic approach to governing the green transition,[11] and of experimentation with more strategic approaches in North America, Europe and Australia since 2022 (see Table 1). We then tested it through a process of consultation with a carefully selected group of high-level Australian political, policy, business, finance and climate-related NGO practitioner-experts to gauge perceptions of its theoretical validity and practical utility in the Australian context. Based on our empirical observations and practitioner-expert deliberations, we identify five key components of Green Energy Statecraft (see Figure 1).

THE GREEN ENERGY STATECRAFT GOVERNANCE MINDSET

Green Energy Statecraft involves a way of thinking strategically about the green energy shift and its comprehensive national security-enhancing potential. This new governance mindset includes a belief on the part of political and policy leaders (further reflected in organisational culture and official policy documents) that by rapidly building and scaling new green energy industries, they can reduce fossil fuel import dependence, boosting energy security; they can create the new high-tech, high-wage, high-skilled jobs and export industries of the future, boosting economic security; they can rapidly reduce carbon emissions, boosting environmental security; and they can promote a just and inclusive transition that will enhance human flourishing and strengthen social cohesion, mitigating current political polarisation. For some well-positioned countries, especially those with sustainable competitive advantages in critical resources, the energy shift can also underpin the projection of a green superpower image abroad, attracting allies and investment and boosting military security.

This mindset emerged in its most explicit form over a decade ago in Northeast Asia and has evolved into a new policy discourse that is now firmly established among key policy elites in South Korea and China (see Table 1).[12] But a survey of political discourse indicates that elements of this new thinking are catching on even in hitherto ardently neoliberal contexts, from the United States to the United Kingdom, Canada and Australia (Table 1).

FIGURE 1. THE KEY COMPONENTS OF GREEN ENERGY STATECRAFT



SOCIO-POLITICAL FOUNDATIONS OF GREEN ENERGY STATECRAFT

A new governance mindset is a necessary but insufficient precondition for the embrace and effective execution of Green Energy Statecraft. To launch a transformative green agenda and sustain it over the long term, national leaders must build a new social and political consensus both for the energy transition and a more ambitious and strategic role for the state in advancing it (the specific contours of which we discuss in the following three sections). In short, Green Energy Statecraft demands that political leaders persuade citizens that the benefits of the green transition will outweigh the costs and that their transformative visions are worth backing. As trade-offs exist in any transition, the central governance challenge is to find processes and a language that can unite broad constituencies behind this new strategic direction. This is particularly important in polarised political contexts like the US, Australia, and the UK, where such processes and language have yet to be identified. Yet recent experimentation has borne some fruit in Australia, where an unlikely alliance of financiers, industry associations, unions, farmers, conservation groups and First Nations communities have unified to some extent behind the Albanese government's 'Future Made in Australia' agenda, under the 'Renew Australia for All' banner.[13]

To sustain a social and political consensus in the green transition, it is essential to prioritise economic, social and environmental equity, justice, and accountability in greening efforts, which is why it sits at the heart of our ideal-type diagram. In this regard, Green Energy Statecraft is attentive to the potential benefits and losses to specific sectors within society. It must genuinely attend to community concerns about job losses in fossil fuel industries as well as the potential benefits and losses relating to the roll out of renewables on the lands of First Nations people and people in rural and regional communities disconnected from policy elites.[14]

Relatedly, greening must not perpetuate harms traditionally associated with energy infrastructure and mining activities – a real and present risk.[15] This can only be achieved by developing new mechanisms for local democratic consultation as well as rigorous social and environmental evaluation and accountability mechanisms for new projects, all essential for social and political consensus-building.[16] Local consultation might delay implementation of individual projects, but its absence would risk a wider political backlash that threatens the entire transition, as some sub-national Australian governments are discovering.[17] And as advanced mineral refining and processing continues to shape geopolitical competition in critical minerals for green energy, innovation in industrial processes and technology must be accelerated to limit the impacts on species, fragile ecosystems, and freshwater. Ensuring robust protections are in place to drive a race to the top will enable a broader, longer-term investment environment with positive feedback effects on national security.

DOMESTICALLY-ORIENTED GREEN ENERGY STATECRAFT

Domestically-oriented Green Energy Statecraft involves bold government initiatives to build, grow and successfully compete in the high-technology industries essential to the green transition – either individually or in close collaboration with key economic and strategic partners. This aspect of statecraft will need to be tailored to each country's strengths and weaknesses to maximise its effectiveness.

We find extensive evidence of this statecraft in Northeast Asian countries, especially South Korea and China, where policymakers understand the huge economic gains to be made from pioneering new markets and seizing first mover advantage.[18] Their long history of highly strategic, export-oriented techno-industrial policymaking, underpinned by close, collaborative government-business relations and financial support, gives these governments a significant advantage in this crucial statecraft domain. Nevertheless, largely in response to the China challenge, we have seen growing experimentation with ambitious green industry building initiatives in countries with liberal state traditions, from the United States (under the Inflation Reduction Act) to the UK (under its Clean Energy Superpower Mission Board) and Australia (under Future Made in Australia).

It is useful to distinguish domestically-oriented Green Energy Statecraft from 'industry policy', green or otherwise. The term 'industry policy' is now highly politicised and widely misunderstood in many national contexts.[19] It is also an unhelpfully broad term that can describe any government intervention in the economy intended to alter the nation's productive structure, regardless of motivation, from industry development to job creation to pork-barrelling. By contrast, domestically-oriented Green Energy Statecraft describes government initiatives focused squarely on building new green energy-related industries with the intention of ensuring success in hyper-competitive global markets and, simultaneously, bolstering national security, broadly defined.[20] As the Northeast Asian experience shows, this goal-orientation makes domestically-oriented Green Energy Statecraft a highly disciplined affair; policymakers who practice it successfully don't merely outline bold visions for new industry creation. They make government support conditional on firm performance to ensure success. This involves setting clear production, export, environmental and/or technology upgrading targets, and mobilising both supply- and demand-side policy instruments and all available financial resources and incentives to ensure that targets are met (we discuss the financial foundations of Green Energy Statecraft below).[21] Such discipline is also essential to ensure that precious taxpayer dollars are not squandered and economic and social returns to citizens are maximised.

TABLE 1: EMPIRICAL EXAMPLES OF GREEN ENERGY STATECRAFT IN ACTION

	The Green Energy Statecraft Governance Mindset 	**Socio-political Foundations of Green Energy Statecraft** 
Northeast Asian Context	Evident in the embrace of so-called "Developmental Environmentalism" in Northeast Asia (taking in China's "ecological civilization" vision and South Korea's "Low Carbon, Green Growth" vision.[22] The discourse surrounding the Japan-dominated Asia Zero Emissions Community is also indicative, insofar as it seeks to achieve a "triple breakthrough" of "addressing climate change, promoting inclusive economic growth, and achieving energy security simultaneously".[23]	South Korea's jobs focused Green New Deal 2.0 released in the wake of COVID.[24] China's National Ecological Civilization Pilot Zone Implementation Program (2020).[25]
Western contexts	Evident in discourse and actions surrounding the creation of the Inflation Reduction Act in the US and the Future Made in Australia Act in Australia as well as the pursuit of "Green Superpower" ambitions in the United States, the United Kingdom and Australia.[31]	Canada's 'Wah-ila toos' (2023) with c$300 mil in funding for indigenous/ northern green energy projects.[32] US Tribal Energy Finance Program under the Inflation Reduction Act. The Nordic Energy Security and Citizens Conference of 2023. "This conference unites essential themes of our time, encompassing energy security, citizen engagement, and the energy trilemma."[33] Denmark's mandated minimum 20 per cent community ownership of all wind projects under 2009 Danish Renewable Energy Act. [34]

Domestically – oriented Green Energy Statecraft 	Externally-oriented Green Energy Statecraft 	Financial Foundations of Green Energy Statecraft 
Made in China 2025. Korea's National Strategy for Green Growth.[26]	China's Green Belt and Road initiative.[27] South Korea's Global Green Growth Institute Initiative.[28] Japan's Asia Zero Emissions Community vision focused on a "triple breakthrough".	South Korea's and China's repurposing of existing national development banks to serve greening goals.[29] S. Korea's Green New Deal (2020) committed "73.4 trillion won (42.7 trillion won from fiscal investment), 659,000 jobs created"[30]
US Inflation Reduction Act Europe's Green New Deal Australia's Future Made in Australia Act Establishment of GB Energy in the UK and the UK Energy Mission Board as part of its Renewable Superpower platform.	The EU's CBAM initiative[35] The US' IPEF (Pillar III) including the Clean Economy Agreement, the Green Climate Fund, and the Catalytic Capital Fund.[36] Australia's bid to jointly host COP 31 with Pacific Island Nations.[37] Friendshoring initiatives between the US and its allies centred on critical minerals, eg the Minerals Security Partnership.[38]	Proliferation of 'green' development banks and other green investment mechanisms in western contexts such as Australia (Clean Energy Finance Corporation, National Reconstruction Fund) and the UK (GB Energy)[39] European Green Deal calls for "At least 25% of the EU's long-term budget should be dedicated to climate action, and the European Investment Bank, Europe's climate bank, will provide further support. For the private sector to contribute to financing the green transition, the Commission will present a Green Financing Strategy in 2020"[40] The recommendations of the Financial Stability Board's Taskforce for Climate-Related Financial Disclosure is being implemented in several jurisdictions, including the EU, UK, USA, Brazil and Japan; the Bank of England and ECB have introduced climate risks into financial stress-testing; the Bank of England has "greened" its QE framework.

What if many governments embraced this kind of strategic activism? Would the market for green goods and technologies be saturated, driving down prices to the point of non-viability? China's massive investments in green industries have already dramatically reduced prices for goods like batteries, solar panels, and EVs. But given the climate crisis, sharply falling prices for these goods, combined with technological spillovers that benefit firms and consumers, are cause for celebration.[41] To be sure, there are losers, including workers in less competitive sectors in advanced countries, but these groups should be provided with transitional financial support and retraining to secure their future. Under existing trade rules on "safeguards", governments concerned about the domestic impact of import surges are already permitted to impose temporary tariffs to enable adjustment. However, tariffs that inhibit the green transition are counter-productive and reflect a failure of green energy statecraft.

Economists often object that green interventions risk greater protectionism. These concerns are misplaced. Fossil fuel subsidies continued unabated in the so-called era of open trade. We have been experiencing rising protectionism in manufactured products for some years, driven in part by a concern that China's dramatic export successes have been achieved by "unfair" departures from principles of open trade. Yet these "fair trade" responses from Europe, the US and others have not brought the world closer to a free trade ideal. The US in particular is unlikely to exhibit great concern for WTO rules or for general principles of open trade in the foreseeable future. As we discuss below, it would be more productive – and an important external component of green economic statecraft – to negotiate new ground rules for global trade that permit interventions that promote a green transition while limiting protection in goods and services that are critical to this transition.

It is also worth noting that economists have long accepted important justifications for departing from free trade. Adam Smith famously defended the mercantile-era Navigation Acts on national security grounds, arguing that "defence is of much more importance than opulence". Like Smith, we favour prioritising national security, but conceive it as including the long run prosperity and collective sustainability of economic and social life. Certainly, there are likely to be trade-offs between economic efficiency and interventions to support the green transition. This implies the need for discipline and conditionality in local industry-building endeavours, both crucial components of effective domestically-oriented green energy statecraft. But there are larger social and environmental benefits to be gained from a successful energy transition, including greater economic security for workers in advanced and developing countries.[42] There is also, we would add, sound strategic reasoning behind efforts to diversify green supply chains on Smithian security grounds. The concentration of production capabilities for critical goods and technologies in a single country poses serious risks to the global green transition should international relations deteriorate or unforeseen disaster strike.

EXTERNALLY-ORIENTED GREEN ENERGY STATECRAFT

Effective domestically-oriented statecraft demands a high degree of external coordination, not least to mitigate the potential risks in framing the green transition as a national security imperative. Green energy statecraft must avoid the pitfalls of extreme protectionism and extreme openness, strategically leveraging the benefits of – and synergies between – international competition and cooperation ('coopetition', in the language of strategic management scholars).[43]

For example, a country's trade and investment agreements must secure market access for green exports while not overly restricting its policy 'room to move' when it comes to domestic green industry-building initiatives.[44] In this context, many international agreements are not fit for purpose. Developing countries have long argued that the WTO trade regime imposed excessive constraints on domestic policy autonomy, especially in the techno-industrial sphere, thwarting development efforts.[45] WTO rules can also make it difficult for developed nations to mobilise the policy tools required to green and grow their economies while maximising the economic and social benefits for citizens, especially in the sphere of public procurement (although some countries interpret these constraints more liberally than others).[46] The crisis of legitimacy of the WTO caused by America's defection and the widespread flouting of rules by others compels policymakers to confront the limitations of existing trade rules from both a climate and development perspective, and opens up the opportunity to create a more development- and climate-friendly trade regime that could rebuild trust in plurilateral (if not global) governance efforts.[47]

Engaging constructively in these reform debates is fundamental to the task of externally-oriented Green Energy Statecraft. It requires dedicated efforts to build a consensus between governments on permissible environmental subsidies that minimise negative cross-border externalities while maximising positive spillovers – economic and environmental.[48] It is essential that tariffs on products critical to a successful global energy transition are minimised.[49] So is building a domestic and international consensus for the development of regional and global agreements that price carbon, like the European Union's Carbon Border Adjustment Mechanism, which lend further momentum to domestic green industry-building efforts and global efforts to mitigate climate change.

A country's domestic green industry building initiatives must also attend to the needs of its major economic and strategic partners. This is especially true for smaller, trade-exposed economies like Australia, whose future prosperity hinges on maintaining a reputation as a reliable energy exporter and locking in new export markets for its new green industries, from green ammonia, to green iron and steel, green aluminium, lithium hydroxide, green polysilicon and beyond. Foreign aid programs should also help to establish a country's reputation as a dependable and desirable development partner by helping recipients green and grow their economies, reduce poverty, enhance social and political stability, protect the environment, and support climate adaptation, as per the Paris Agreement.

FINANCIAL FOUNDATIONS OF GREEN ENERGY STATECRAFT

Building new green industries and doing so at a speed and scale that can deliver on multiple security fronts – addressing the climate crisis, ensuring a just transition, securing first mover advantage, and in some cases advancing green energy superpower ambitions – will be massively capital intensive. It could require upfront financing in the range of three to six times current levels.[50] This will also necessitate the redirection of currently large fossil fuel investments and subsidies towards these new industries. For those countries which, in addition, have green energy and manufacturing export ambitions additional large investments will need to be financed.

This financing will only be available and effectively deployed if accompanied by a decisive shift in governance of the kind we are suggesting, along with expectations that carbon price signals in international trade will progressively build. Private sector and government alignment on a national and global agenda with clear priorities and targets is essential and requires a strategic policy that mobilises finance and industry via changes in financial regulation, government purchasing and direct contracting for supply, central bank policy, tax policies, foreign aid, and multilateral development finance. There is some initial evidence of this recognition in the re-emergence of national development banks and other policy finance institutions in countries that for decades have eschewed development finance (see table 1).[51]

The success of ambitious national greening projects will also hinge on equally ambitious global cooperation, which will make further demands on governance. So will the mobilisation of unprecedented levels of multilateral development bank and private investment capital in advanced countries to finance the transition in low- and middle-income countries. This need follows directly from the recognition that the latter set of countries must make the largest cuts in greenhouse gas emissions over the rest of this century, but they lack the financial resources to do it alone.[52] Green Energy Statecraft, therefore, must have a strong and forward-looking dimension that grounds international cooperation in collective self-interest.

IMPLICATIONS: INVESTING IN GOVERNANCE AND STATE CAPACITY FOR GREEN ENERGY STATECRAFT

What we are observing – from Beijing to Washington D.C., from Seoul to Canberra and Delhi, and from London to Ottawa – is the uneven emergence of a Green Energy Statecraft mindset and an associated institutional and policy reform agenda. To be sure, this development is far from certain given the oft-cited first mover cost disadvantages and the political backlash against green policies. But it is nevertheless a positive development that must be nurtured where the national political environment allows. To advance this agenda, we need large investments not only in the energy transition, but in governance capabilities, national and collective.

Yet we must also recognise that countries are beginning today from very different starting points and with widely divergent approaches to, and capacities for, governance and statecraft. For example, Northeast Asian countries like South Korea and China have a particular advantage in domestically-oriented economic statecraft and its associated financial foundations, while countries like Canada, Denmark and Sweden have advantages in the social justice and accountability aspects. These divergences are producing what looks to some like a confused ‘spaghetti bowl’ of policies and initiatives, and are occurring against a backdrop of rising political polarisation and economic conflict. Yet within this jumble we have distilled the essential elements of an emergent Green Energy Statecraft – and the synergies between these elements.

It is crucial that national decisionmakers and energy researchers alike are aware that Green Energy Statecraft exists as a *strategic opportunity* to tackle multiple complex and related national security and political crises. At the same time, Green Energy Statecraft exists as a challenge. To maximise its inherent opportunities, national decisionmakers must successfully navigate not only the ideological, political, institutional and economic constraints of their domestic policymaking context, but also the statecraft-related ambitions and efforts of their economic and strategic partners and rivals. The future collective security of our species depends on their ability to grasp this opportunity.

ENDNOTES

1 While the energy shift also has important global security implications, we focus here on the national implications and related governance opportunities and challenges.

2 Leaders of the United States, the UK, Australia and India have all explicitly articulated green or clean superpower ambitions, while China's actions point to similar goals.

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8 Weber M. *Economy and society: A new translation*. (Harvard University Press, 2019).

9 On deploying Weber's ideal type analytical approach and methodology in social sciences research see, for example, Swedberg, R. How to use Max Weber's ideal type in sociological analysis. *Journal of Classical Sociology* 18(3) 181-196 (2018).

10 Ideal types are built to be broken down and improved. Max Weber's viewed them as "emergency safe havens until one has learned to find one's bearings while navigating the immense sea of empirical facts." Weber M., The "objectivity" of knowledge in social science and social policy. In: Weber M (ed.) *Collected Methodological Essays London*: Routledge 2012, 100–138, p. 133.

11 Drawing on, for example, observations presented in Thurbon et. al. *Developmental Environmentalism* (2023) ibid.

12 See Thurbon et. al. *Developmental Environmentalism* (2023) ibid.

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