The Political Economy of the Clean Energy Transition*

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October 24, 2025

Abstract

Why are some countries more successful at advancing the clean energy transition than others? Existing research, centered on industrialized democracies, often frames international collective action against domestic distributive explanations. This review synthesizes many previous comparative and international explanations in a credibility framework that clarifies when governments can reduce opposition and create climate coalitions. Applying it to both developed and developing countries reveals how institutions, state capacity, and global constraints jointly shape decarbonization trajectories and suggests a new research agenda for the political economy of climate change.

Keywords: climate change; international political economy; comparative political economy; credibility; clean energy transition; decarbonization

*Thanks to Felipe Balcazar, audiences at the 2023 American Political Science Association Annual Meeting and Yale University, and the reviewers for insightful comments.

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Contents

1 Introduction

Limiting climate change requires a rapid, large-scale shift from fossil fuels to clean energy in industrialized countries and steering new energy development in emerging economies toward low-carbon options. While the technologies exist to begin the energy transition, current decarbonization trajectories remain too slow to avert the worst damages from global warming (Davis et al., 2018; IPCC, 2022). Two decades of social science research identifies politics as a significant cause of this impasse.

We first overview political economy approaches to climate change. Early work modeled climate mitigation as a global public goods problem, emphasizing free riding and the need for international solutions such as issue linkage, trade barriers, and information provision (e.g., Barrett, 2003; Keohane and Victor, 2016). More recent research shifts the focus to domestic distributive conflict, using a comparative lens to analyze how business-labor coalitions, green interest group strength, and institutional arrangements shape climate politics (e.g., Aklin and Mildenberger, 2020; Harrison and Sundstrom, 2007).

Although research has varied in its emphasis on domestic and international factors, emphasis doesn't imply theoretical exclusivity. Climate change, by definition, is a global collective action problem—whose solution depends on domestic politics. Moreover, local decisions are embedded in a global context of supply chains, security concerns, and international organizations. This review highlights how these two levels of analysis are not mutually exclusive but interact.

We contend that integrating domestic and global explanations yields both theoretical and empirical benefits. The public goods model, while parsimonious, struggles to generate mid-range predictions about which countries will decarbonize. Its collective action framework is deliberately abstract, so deriving hypotheses requires assumptions about technology costs, private benefits, and discount rates (Kennard and Schnakenberg, 2023). In other words, scholars must open "black box" of domestic politics to explain climate policy choices (Victor, 2011).

Yet comparative theories centered on domestic politics—though offering rich accounts of climate policy adoption, content, and implementation—face empirical anomalies. Climate coalitions do not always form even when businesses, labor, and voters could gain from clean energy investments. And side-payment strategies, despite their theoretical promise, often fail to quiet opposition from groups, such as coal miners, that bear concentrated costs (Gazmararian and Tingley, 2023).

We advance the concept of credibility to synthesize and extend existing climate politics theories. We conceptualize two forms of credibility: strategic and structural. Strategic credibility refers to commitment problems that arise from time-inconsistent incentives and information asymmetries (Kydland and Prescott, 1977; Rodrik, 1989). Structural credibility concerns whether clean energy investments can in fact create local jobs, tax revenue, and growth, given technological and market constraints (Gazmararian and Tingley, 2023).

Credibility matters because the clean energy transition is a profoundly inter-temporal challenge. Firms must make large upfront investments in infrastructure and technology but will hesitate if future rules may change; workers must acquire new skills but will not do so without reliable demand; and the potential "winners" from climate policy are often structurally weaker than the incumbent groups that stand to lose. Political economists have long analyzed how institutions help actors overcome commitment problems, manage uncertainty, and reshape power among interest groups.

Building on these insights, we argue that this dual conception of credibility helps integrate many previous explanations for when governments can address political barriers to decarbonization. We focus on how credibility influences when governments can (1) diffuse opposition by compensating the losers of policy reforms and (2) create climate coalitions by generating economic benefits from green investments (e.g., Meckling, 2015). Our review emphasizes how both domestic and international institutions affect credibility in bargaining within and across countries. Not all ideas can be reduced to credibility challenges, but this framework provides a useful theoretical foundation for organizing and advancing research on

the political economy of the clean energy transition.

Our paper then uses this framework to review three forces that shape a government's ability to address credibility challenges: institutions, state capacity, and international constraints. In applying these factors, we pay particular attention to institutional dynamics within developing countries, showing how they condition the politics of clean energy transitions and help explain why outcomes vary across contexts.

While all carbon polluters must curb greenhouse gas emissions, most existing scholarship centers on industrialized democracies. Our review instead foregrounds the developing world, demonstrating how the concept of credibility can organize and extend many earlier theories of climate politics beyond the settings where they were originally developed.

The conclusion sketches a research agenda anchored in, yet extending beyond, the credibility lens. It calls for comparative, cross-level work that connects elite behavior with mass beliefs, policy design with implementation, and domestic institutions with international constraints. Priorities include understanding the politics of decarbonizing the developing world, disaggregating energy transition outcomes, explaining implementation and feedback dynamics, and identifying when compensation and policy feedbacks sustain long-term support for climate reforms.

2 Clean Energy Transition Theories

The clean energy transition is not a single, uniform shift but a constellation of overlapping sectoral transformations that together decarbonize the economy. In electricity, coal- and gas-fired generation are replaced by carbon-neutral alternatives, supported by expanded transmission lines and storage technologies. In transport, internal-combustion engines give way to battery-electric drivetrains, backed by charging networks and critical-mineral supply chains. Heavy industries, such as steel, cement, chemicals, and aluminum, must develop new processes to curb emissions. Buildings need efficient electrified heating and cooling, and

agriculture must curb pollutants like methane.

Markets alone will not propel this transition in time to avert a climate disaster. There are pollution and knowledge externalities that require government intervention to rectify (Jaffe, Newell, and Stavins, 2005). Public policy is central to decarbonization. Given the multi-faceted nature of the energy transition, governments will not pursue single policies or technologies but packages of interlinked measures that evolve across sectors and over time.

The puzzle for political scientists is why some countries make far more progress than others in shifting their economies from fossil fuels to clean energy. This review covers the conditions when countries transition their economies away from fossil fuels to cleaner energy sources. The energy transition also raises normative issues beyond our purview that remain crucial inquiries (Carley et al., 2020).

2.1 Early Approaches to Energy Transitions

Early work on energy transitions came primarily from economists, engineers, and natural scientists concerned with sustainability, energy needs, and innovation (Fisher, 1974; Grübler, Nakićenović, and Victor, 1999; Jevons, 1865). Many analyses focused on historical transitions, such as from biomass to coal in Europe, and portrayed transitions as technology-driven responses to scarcity and rising consumption (Grubler, 2012; Smil, 2010). Some political scientists, prompted by the 1970s oil shocks, examined energy politics, but focused on energy independence not decarbonization (Hughes and Lipscy, 2013).

In the 1990s and 2000s, scholars largely outside of mainstream political science advanced "socio-technical transition" theories that examine how technologies and societies co-evolve within systems (Köhler et al., 2019). They showed how new technologies secure protected niches, gain momentum through learning, and ultimately displace incumbents after external disruptions (Geels et al., 2017). Some work in this vein is prescriptive, outlining how policymakers can guide these processes (Loorbach, 2010).

These perspectives initially focused more on technology than politics, an oversight critics

highlighted (Meadowcroft, 2009). Scholars responded by incorporating variables familiar to political scientists such as incumbent interest groups and institutions (Hess, 2014; Köhler et al., 2019; Roberts et al., 2018; Scoones, Leach, and Newell, 2015; Sovacool et al., 2025). Path dependence has received special attention via the "carbon lock-in" concept, referring to how decades of fossil fuel use have hard-wired infrastructures and lifestyles around carbon-intensive energy (Unruh, 2000). Some political scientists have engaged with these ideas, examining how politics influence path dependence and responses to energy crises (Aklin and Urpelainen, 2013; Lipscy and Schipper, 2013; Meckling et al., 2022). Although many non-political science approaches have begun to incorporate politics, they still emphasize technological dynamics, rely heavily on case studies, and pay limited attention to international relations.

2.2 Global Collective Action Problem

The first wave of political science research on climate change focused on international explanations. Stopping global warming requires collective action since greenhouse gas emissions, no matter where they originate, have the same climatic influence. Solving the problem necessitates that all polluters curtail emissions, but the individual costs of mitigation outweigh the expected benefits, so mitigation falls short of what's optimal from the global perspective (Barrett, 2003; Sandler, 1997).

Political scientists identified three factors that made climate change a particularly challenging public good to provide (for a review, see Bernauer, 2013). First, there is a global asymmetry in mitigation's costs and benefits; the countries most harmed by higher temperatures often have the fewest resources to curb emissions (Sprinz and Vaahtoranta, 1994). Second, mitigation policies face domestic political hurdles because they impose concentrated costs on industries and consumers (Keohane and Victor, 2016). Third, because benefits accrue decades later, politicians, businesses, and voters discount them and doubt long-term commitments (Bechtel and Mannino, 2023; Gazmararian, 2025b; Hale, 2024; Healy and

Malhotra, 2009; Jacobs, 2016).

Motivated by the global public goods model, scholars asked how institutions can dampen free-riding incentives. Mitigation could become likelier if a dominant country or small group takes the lead, nations link issues together, or governments build institutions for monitoring and enforcement (Barrett, 2003; Keohane and Victor, 2016). Countries could also act unilaterally if they anticipate private benefits such as reduced air pollution (Kennard and Schnakenberg, 2023). These international institutional design choices also affect the public's climate policy support (Bechtel and Scheve, 2013).

Early diplomacy aimed for a legally binding treaty with strict enforcement, exemplified by the Kyoto Protocol. When these negotiations stalled, countries turned to a more decentralized, pledge-and-review process formalized in the Paris Agreement (Falkner, 2016; Victor, 2011). This ground-up commitment setting process has led to debates over its effectiveness without strong sanctions (Melnick and Smith, 2025; Rowan, 2025; Tingley and Tomz, 2022), and renewed focus on domestic political processes.

2.3 Domestic Distributive Politics

Comparative politics research on the clean energy transition focuses on domestic political factors. Aklin and Mildenberger (2020) refer to domestic distributive politics as the "meta-theoretical alternative" to the collective action problem. Although these waves are not mutually exclusive, since scholars often integrate domestic factors into global public goods models (Kennard and Schnakenberg, 2023).

Domestic distributive theories start from the premise that energy transition policies create "winners" and "losers." Conflict between these groups explains when governments cut carbon pollution and cooperate internationally (Breetz, Mildenberger, and Stokes, 2018; Harrison and Sundstrom, 2007, 2010; Meckling, 2011). The asset revaluation framework, for instance, casts climate politics as an existential struggle between "climate-forcing", "climate-vulnerable" asset holders (Colgan, Green, and Hale, 2021) and green interest groups (Green,

2025).

The theoretical building blocks are societal groups, their interests and beliefs, and the institutions that aggregate preferences into policy (Cao et al., 2014; Harrison and Sundstrom, 2007). Societal groups facing concentrated benefits or costs are often best organized, since otherwise there are incentives to free-ride on the political activities of others (Olson, 1965).

Finnegan et al. (2025) connects concentrated costs to political outcomes by distinguishing insulation and compensation strategies. Insulation refers to the extent that policymakers can pursue reforms without opposition from the "losers," which could be due to diffuse costs or the harmed group's political weakness. Compensation refers to the explicit side-payment strategy of buying off politically influential "losers" that could otherwise obstruct a reform. We turn next to research on groups facing concentrated costs before examining the beneficiaries.

2.3.1 Concentrated Costs

Three groups confronting concentrated costs have received the most attention: carbon-intensive businesses; the workers and residents of places where coal, oil, and gas extraction occurs; and consumers reliant on fossil fuels.

Firms Businesses harmed by climate policy have several strategies. The primary response is to lobby the government to block reforms (Meckling et al., 2015). Lobbying can also aim to shape a policy's content and implementation (Meckling, 2011; Stokes, 2020). Beyond direct lobbying, companies use tactics such as "astroturfing," diversifying business models (Green et al., 2022; Meckling et al., 2015), and adopting internal governance reforms (Hsueh, 2019; Lerner and Osgood, 2023; Prakash, 2000).

Deriving firm preferences is central to political economy theorizing. One approach is to infer preferences from whether a company produces or uses fossil fuels (Downie, 2017; Kim, Urpelainen, and Yang, 2016; Newell and Paterson, 1998). Companies do not need to directly

use fossil fuels to be affected by mitigation policy since they could depend on carbon-intensive inputs (Cory, Lerner, and Osgood, 2021). Asset specificity also shapes interests; automakers can pivot from internal combustion engines to electric drivetrains, whereas coal miners have fewer viable alternatives (Colgan, Green, and Hale, 2021; Kelsey, 2018). In a global market, firms also judge policy costs relative to competitors and may even support regulations that hurt rivals more than themselves (Genovese, 2019; Kennard, 2020; Meckling et al., 2015). Researchers increasingly draw on new data, such as earnings call transcripts, to proxy for policy preferences that are challenging to observe directly (Baehr, Bare, and Heddesheimer, 2025; Green et al., 2022).

Firms must also understand how energy and climate policies affect their profits for their preferences to shape corporate strategy. Yet businesses can sometimes misjudge policy consequences, especially in novel issue areas (Stokes, 2020).

Labor and Communities Since fossil fuel production is place-bound, its decline imposes spatially concentrated costs, such as lost jobs and tax revenue (Hanson, 2023; Raimi, Carley, and Konisky, 2022). Fossil fuel companies engage in non-market strategies to highlight the industry's centrality to the local economy (Bell and York, 2010; Martinez, Moudgalya, and Tingley, 2025). These potential and actual losses shape the alignment of carbon-intensive labor with capital (Mildenberger, 2020), the policy preferences of residents (Bechtel, Genovese, and Scheve, 2019; Gaikwad, Genovese, and Tingley, 2022; Tvinnereim and Ivarsflaten, 2016), and electoral outcomes (Egli, Schmid, and Schmidt, 2022; Gazmararian, 2025a; Heddesheimer, Hilbig, and Voeten, 2025; Stutzmann, 2025). Without credible compensation, fossil fuel communities have increasingly backed parties that oppose climate policy (Bolet, Green, and Gonzalez-Eguino, 2024). Compensation also helps increase broader societal support for climate policy (Gazmararian and Tingley, 2023; Mares, Scheve, and Toenshoff, 2025).

Consumers Although consumers are numerous and uncoordinated, highly salient costs, such as higher power bills, can still affect political behavior (Beiser-McGrath and Bernauer, 2024; Dechezleprêtre et al., 2025; Gazmararian and Milner, 2025a). Energy price increases caused exposed Dutch households to support far-right populist parties (Voeten, 2025b), while Milan's vehicle restriction also sparked backlash (Colantone et al., 2024).

2.3.2 Concentrated Benefits

The clean energy transition also creates concentrated benefits that could create climate coalitions.

Firms and Industries Businesses involved in clean energy and technology supply chains, such as solar panel manufacturers, stand to gain from decarbonization. Supportive interest groups may not already exist in places where clean energy industries are nascent, so political reformers have sought to protect and expand such industries with the aim of building climate coalitions. The shift from carbon pricing to industrial policy reflects this political logic to create benefits instead of costs (Cullenward and Victor, 2021; Green, 2025; Rabe, 2018; Ross, 2025).

Labor and Communities Clean energy projects could also create economic benefits such as jobs and tax revenue. The magnitude of these benefits may vary based on an investment's characteristics, such as its capital or labor intensity (Gazmararian and Tingley, 2023). Reformers often calibrate policy to create benefits for specific groups, such as prevailing wage requirements in the Inflation Reduction Act (IRA) to benefit unionized labor.

These economic benefits could appeal to communities where projects are built, potentially counterbalancing local opposition to energy development. Scholars debate whether local benefits outweigh costs such as land use and visual disruption. Studies have found that wind project siting, for example, has produced both electoral rewards and punishment for incumbents (Stokes, 2016; Urpelainen and Zhang, 2022).

Climate-Vulnerable Groups Decarbonization, if successful, will also limit future climate damages, which represent a delayed but concentrated benefit in the locations most vulnerable to global warming. Colgan, Green, and Hale (2021) conceptualize these groups as "climate-vulnerable" asset owners, but assume they are politically inconsequential in the short-run. Experience with climate change's effects could make the threat more proximate, although this remains an emerging research area (Howe et al., 2019). There is evidence that people, businesses, and governments adversely affected by global warming are increasingly mobilizing to support mitigation (Gazmararian and Milner, 2025a, 2026). Public opinion also shows a positive correlation between vulnerability and climate policy support (Dechezleprêtre et al., 2025; Gaikwad, Genovese, and Tingley, 2022; Reny, Reeves, and Christenson, 2025).

2.3.3 Beyond Distributive Politics

Distributive politics theories tend to focus on voters and businesses. Yet non-state actors such as civil society groups also shape outcomes, especially in global climate negotiations, where their influence has been well documented (Hale, 2020). Unlike businesses, these groups often base their advocacy on normative commitments, rather than on direct material gains from mitigation.

Beyond material explanations, scholars highlight partisanship, ideology, and culture. Right-wing populist parties often oppose climate policy (Huber, Fesenfeld, and Bernauer, 2020; Lockwood, 2018), and in the United States partisan polarization shapes both legislature behavior (Shipan and Lowry, 2001) and public attitudes (Egan and Mullin, 2017). Untangling these correlations is difficult, because voters could follow messages from leaders, or they support such parties because they bear disproportionate costs. Moreover, patterns observed in wealthy democracies do not always travel. The gender gap in climate attitudes, for example, is much weaker in many developing countries (Bush and Clayton, 2023).

3 Why Integrate Comparative and International Theories

Although the collective action framework is powerful in its parsimony, it cannot generate clear, mid-range predictions about when and how countries adopt and implement climate policies. Doing so requires comparative political economy: domestic actors, their preferences, and the institutions shaping their interactions (Victor, 2011).

Yet domestic factors alone are insufficient. These national policy choices are embedded in global markets and constrained by international institutions (Gourevitch, 1978). And in a world of uneven domestic mitigation, accelerating the transition will depends on international cooperation.

The comparative turn to distributive conflict has illuminated how winners and losers shape policy, but puzzles remain. Why do green beneficiaries mobilize in some contexts but not others? Why does compensation pacify opposition in some countries but fail elsewhere? We argue that resolving these puzzles requires analyzing how the two forms of credibility emerge and differ across contexts.

The divide between comparative and international approaches also limits how theories travel beyond wealthy democracies. Global models often treat states as unitary, overlooking coalitions and credibility constraints, while distributive accounts were developed in industrialized democracies.

Yet developing countries vary in both their domestic and international politics. Domestic interest group configurations often differ. Many developing nations are still expanding basic electricity access rather than phasing out fossil fuels (Aklin and Urpelainen, 2018); elite competition frequently hinges on patronage networks rather than organized interest-group bargaining (Bayulgen, 2022); and distributive struggles can revolve around access and vote buying more than classic producer-consumer conflicts (Min, 2015).

Domestic distributive conflict in developing countries is deeply interdependent with world

politics. First, countries vary in access to international finance and global value chains, which shapes their ability to benefit from the clean energy transition. Second and relatedly, since emerging countries need external capital to fund and implement mitigation policies, they rely more on foreign aid, yet these commitments can be fragile as they rely on domestic coalitions in donor countries. Third, international organizations exert particular influence on the resources and incentives developing countries through trade regimes, development banks, and information provision.

While there is cross-national research on climate policy adoption, few studies examine credible commitment problems directly and most focus on aggregate policy measures rather than disaggregating the energy transition (but see Mahdavi, Martinez-Alvarez, and Ross, 2022; Martinez-Alvarez et al., 2022). Scholars have linked mitigation policy adoption to climate-disaster exposure (Gazmararian and Milner, 2025b; Peterson, 2021; Rowan, 2022), political institutions and ideology (Bayer and Urpelainen, 2016; Bayulgen and Ladewig, 2017; Levi, Flachsland, and Jakob, 2020; Madden, 2014; Schaffer and Bernauer, 2014; Schulze, 2021; Ward and Cao, 2012), energy-system characteristics (Schaffer and Bernauer, 2014), and policy diffusion (Baldwin, Carley, and Nicholson-Crotty, 2019). Complementary case studies trace the politics of clean-energy transitions in China (Cao, Kleit, and Liu, 2016; Gong, 2025; Lewis, 2012; Tan et al., 2021), India (Busby and Shidore, 2021; Dubash, 2013), Indonesia (Chelminski, 2022; Hsiao and Kuipers, 2025; Yuliani, 2017), Brazil, and South Africa (Baker, Newell, and Phillips, 2014; Hochstetler, 2020), with related work on power-sector reform revealing similar political challenges (Inchauste and Victor, 2017; Victor and Heller, 2007).

Yet domestic distributive politics theories could travel with adjustments. Many developing countries have fossil fuel endowments—China, India, Indonesia, Colombia, Mongolia, South Africa, Turkey, and Vietnam—and confront entrenched fossil-fuel interests. Debates over compensating workers and communities also appear in emerging economies (Gaikwad, Genovese, and Tingley, 2022; Gong and Lewis, 2024), and local backlash to renewable

projects occurs in China, South Africa, and Brazil (Davidson et al., 2016; Shen, Cain, and Hui, 2019; Vallejos-Romero et al., 2020).

These dynamics suggest scholars need not invent new theories to explain climate politics in the developing world. Instead, they should specify how frameworks adapt to settings with different societal groups, interests, and institutional constraints.

4 Credibility as a Unifying Framework

We use the concept of credibility to integrate comparative and international political economy literatures on climate change. This synthesis, first, provides a structured mechanism to review clean energy transition theories. It also offers an approach to bring greater theoretical coherence to climate politics scholarship, facilitating the identification of research priorities and extension of theories to the developing world.

We consider strategic and structural conceptions of credibility (Gazmararian and Tingley, 2023). Strategic credibility refers to commitment problems stemming from time inconsistency and incomplete information: laws implemented today can be unwound in the future as political and economic circumstances change (Kydland and Prescott, 1977; Rodrik, 1989). Actors may also fear that they will lose power in the future because of reforms, pushing them to hold up bargaining today (Dixit and Londregan, 1995; Williamson, 1989). If reforms are not self-enforcing, the lack of a third party to ensure that policies will not be reversed can yield inefficient policies (Acemoglu, 2003; Fearon, 2011).

The threat of policy reversal is salient for both the domestic and international politics of decarbonization. Domestically, compensation and clean energy investment policies must be sustained over the long run (Aklin, 2024; Hale, 2024; Hovi, Sprinz, and Underdal, 2009), otherwise uncertainty dampens business investment in risky low-carbon technologies (Brunner, Flachsland, and Marschinski, 2012; Ulph and Ulph, 2013). Internationally, wealthy governments also need to sustain climate aid to developing nations to tilt their cost-benefit

calculations toward mitigation.

Trust, though analytically distinct from commitment problems, influences perceptions of government credibility (Anderson, 2017; Levi and Stoker, 2000). There is declining trust in government in the United States (Hetherington, 1998), and particular concern in regions most affected by decarbonization about whether the government will follow through on its promises (Gazmararian and Tingley, 2023). Citizens in emerging countries may also be doubtful about commitments from industrialized nations given historical inequalities.

Structural credibility is the ability of clean energy investments to create benefits such as jobs and tax revenue, which depends on underlying domestic and international constraints. Industries vary in labor and capital intensity, skill requirements, and ease of taxation, shaping the benefits green projects bring communities. Countries also have different comparative advantages and some, by virtue of their resource endowments or supply chain positions, may be better able to pursue a national green growth model. Clean energy investments that can make workers, communities, and countries as well or better off than before are likelier to receive public support (Bain et al., 2016; Caggiano et al., 2024; Stokes and Warshaw, 2017), facilitating the creation of climate coalitions.

Strategic credibility is more a property of the relationship between actors, which can be structured by institutions. By contrast, structural credibility is more about the state of the world; these material constraints, although not immutable, are challenging to alter. A country, for instance, cannot change its comparative advantages overnight.

Together, these credibility concepts help explain when governments are able to address political barriers to the clean energy transition: creating allies and diffusing opposition.

First, credibility helps explain when climate policy can cultivate allies through concentrated benefits (Meckling and Nahm, 2022; Ross, 2025). Strategically, more credible government commitments to the clean energy transition create more certain market signals that make costly green investments more likely to manifest (Blyth et al., 2007; Bosetti and Victor, 2011). Structurally, the public and interest groups are more likely to anticipate gains

from climate reforms when green investments are more economically feasible and capable of generating economic benefits. Expected benefits matter not just for building a coalition to adopt mitigation policies, but for implementing such policies via the required infrastructure deployment.

Credibility also shapes when domestic and international side-payments to businesses, communities, and individuals can successfully mute opposition to reforms. The standard political economy prescription is compensation: assist harmed groups adjust to decarbonization's costs through policies such as retraining and place-based investments (Arel-Bundock and Pelc, 2024; Green and Gambhir, 2020). Compensation is also relevant for international debates about climate aid, such as the Just Energy Transition Partnerships to help developing countries phase down fossil fuels. Yet such domestic and global bargains can collapse when recipients doubt that payments will continue, a strategic credibility problem, or suspect that compensation cannot fully offset losses, a structural credibility problem (Dixit and Londregan, 1995; Gazmararian and Tingley, 2023; Jacobs and Matthews, 2017; Patashnik, 2014).

Even bargains that appear entirely domestic, such as compensating losers, occur in the context of global markets and international institutions. International factors can shape the preferences of domestic actors, their resources, and their information environment, exacerbating or attenuating domestic strategic and structural credibility challenges. Furthermore, international relations scholarship has long explored how credibility influences cooperation necessary to provide global public goods like a safe climate.

Not all political economy challenges in the clean energy transition are reducible to credibility challenges, as the conclusion discusses. Still, credibility offers a useful lens for understanding many theoretical themes in the field.

To illustrate the framework's utility, we explore how three interrelated domestic and international factors influence both types of credibility: institutions, state capacity, and international constraints. These ideas aren't independently new, but we unite them behind

a common theoretical logic. We propose how differences in each affect the government's ability to compensate losers and create climate coalitions. When hypothesizing how these variables affect outcomes, researchers will also need to specify the interests of political actors, which could differ across industrialized and emerging economies.

4.1 Political and Economic Institutions

Institutions are rules, procedures, and norms that constrain interactions (North, 1990). We examine four institutional features that vary across countries and affect credibility challenges: business-state relations, labor market arrangements, electoral rules, and transparency. We also consider informal institutions, which may be more prevalent in developing contexts.

4.1.1 Business-State Relations

The institutions governing business-state relations can shape whose voice prevails in distributive conflict over decarbonization. In pluralist systems many autonomous groups vie for influence while remaining outside formal decision-making. In corporatist systems a small set of centralized business and labor associations play a more direct role in policymaking (Martin and Swank, 2012). These channels of business influence can affect the content of climate policy, such as by shifting costs from producers to consumers (Mildenberger, 2020).

Corporatist systems may bolster the credibility of government commitments to businesses and labor regarding compensation and investment. Capital and labor interests have long-term policymaking access, so they may worry less about political reversals because they can better block retrenchment attempts. Repeated interactions also allow political actors to develop reputations and reduce transaction costs (Finnegan et al., 2025; Meckling et al., 2022). These dynamics primarily involve strategic credibility.

Most climate politics research on corporatism and pluralism centers on industrialized democracies (Finnegan, 2022a; Finnegan et al., 2025; Martin and Swank, 2012; Meckling and Nahm, 2022; Mildenberger, 2020). But emerging work shows their promise and poten-

tial applicability in developing countries (Hochstetler and Milkoreit, 2015; Hutchful, 2019; Nyang'oro, 2019; Pretorius, 1996).

4.1.2 Labor Market Institutions

Labor market institutions encompass government programs that develop skills and support workforce training, such as vocational colleges (Thelen, 2004). Although most scholarship studies wealthy economies, developing countries also display wide variation in such institutions (Betcherman, 2012).

Labor market arrangements interact with structural credibility. When communities lack a clean energy workforce, investments are less likely to create local jobs. Many countries confront green workforce shortages due to limited vocational training (IRENA, 2021). Where institutions can quickly "retrain" or "upskill" workers, the transition could become more politically feasible because co-benefits are structurally more credible.

Workforce challenges vary across contexts. In countries with fossil fuel endowments, "re-skilling" looms large in both developed and developing nations (Lim, Aklin, and Frank, 2023). Mobility also differs; in the United States many displaced workers have remained in place after economic shocks, heightening the need for local training programs. This limited mobility may be due to place-based attachments (Bell and York, 2010; Gaikwad, Genovese, and Tingley, 2022), which may vary cross-nationally (Blankenship et al., 2022).

"Brain drain" further complicates the situation in developing countries. Workforce training might equip people with skills to earn more money abroad, inadvertently encouraging migration, unless paired with complementary incentives such as job guarantees.

4.1.3 Elections

Electoral institutions can affect the government's ability to make credible commitments. In proportional representation (PR) systems, losing a few percentage points may not cost parties all their seats. PR also yields coalition governments whose written agreements serve as multi-

year contracts, raising the reputational costs of reneging (Finnegan, 2022a,b; Finnegan et al., 2025; Jacobs, 2016; Lockwood, 2021). Together, these features may reduce fears that future leaders will unwind green investments or compensation programs.

However, there are theoretical reasons that even PR institutions cannot fully insulate politicians from short-term pressures. Ruling parties could be more vulnerable to defeat in PR systems since small shifts in support can have consequences for coalitions, more so than in majoritarian systems when the dominant party has a solid advantage (Matland and Studlar, 2004; Powell, 2000).

More theoretical and empirical work is needed to explain when electoral institutions lengthen time horizons and affect policy output. Tsebelis (2002) makes a compelling case for focusing on veto points rather than features such as presidential and parliamentary systems, a claim partly explored in climate policy studies (Madden, 2014).

Regime type also shapes the credibility of government commitments to sustain reforms. Politicians in democracies face regular elections and, therefore, could be exposed to stronger accountability pressures those in autocracies (Fearon, 1994, 1997). Elections can also induce short termism that isn't conducive to addressing long-term problems (Nordhaus, 1975). Although there is a long tradition of studying the relationship between democracy and the environment, much of it has emphasized leader incentives to provide public goods rather than credible commitment mechanisms (Bättig and Bernauer, 2009; von Stein, 2022).

China indicates that regime type alone may not determine credibility. Its rapid expansion of clean-energy industries seems to challenge the idea that only democracies can commit reliably to long-term policy. Yet China has built alternative commitment mechanisms, such as strong central oversight, decentralized experimentation, and incentives for subnational officials, which give firms confidence policies will endure (Montinola, Qian, and Weingast, 1995; Xu, 2011). Rather than undermining the credibility framework, China shows that authoritarian systems can create their own paths to durable commitments. Beyond China, comparative politics scholarship has questioned the democratic advantage, showing how

certain authoritarian institutions can bind rulers to long-term plans (Gandhi and Lust-Okar, 2009; Weeks, 2008).

4.1.4 Transparency

Transparency matters for strategic credibility in global climate cooperation. International organizations can provide information about which governments or businesses aren't meeting climate commitments. Since these actors know that their inaction may face public exposure and penalties, it could be easier to cooperate despite the energy transition's long time horizons. Sanctions such as trade barriers, however, aren't always self-enforcing and are themselves subject to commitment problems (Dubash, 2021; McAllister and Schnakenberg, 2022).

Transparent domestic political and economic processes can also influence whether actors expect benefits from clean energy investments, a form of structural credibility. In a principal-agent model, the government (principal) wants projects that maximize local benefits, but they cannot fully judge a firm's (agent) promises in advance and imperfectly afterward. These information gaps are particularly acute when governments rely on tax credits and subsidies (Jensen and Malesky, 2018), and can be even larger in autocratic countries (Shen, 2024).

Greater transparency makes accountability more likely because governments can better monitor firm behavior (Heald, 2006; Holmstrom, 1979). Transparency can also emerge from non-governmental monitoring (Anderson et al., 2019). Yet sunlight alone is insufficient without enforcement (Alt, 2019; Hood and Heald, 2006).

Transparency-enhancing institutions can, in principle, facilitate business and public acceptance of clean energy reforms. But the effect could also be bidirectional. Public support could decline if disclosure reveals that green projects are not delivering local benefits, for instance. Conversely, limited transparency sometimes attenuates policy opposition by allowing reformers to hide costs (Arnold, 1990).

4.1.5 Informal Institutions

Informal institutions vary within and across countries (Helmke and Levitsky, 2004). Informal institutions are especially relevant in developing countries, where formal rules often rest on pre-existing social practices (Tsai, 2007). Local norms of trust, reciprocity, and peer sanctioning can substitute for state regulation when communities manage common pool resources (Ostrom, 2009).

These reputational mechanisms can strengthen strategic credibility, because political actors know that violating an agreement or mismanaging a project will trigger social sanctions even when formal enforcement is weak (Gazmararian and Tingley, 2024; Korppoo, Stensdal, and Korsnes, 2020). Robust community sanctions could also reassure investors that commitments will be honored and help ensure that promised co-benefits materialize. Such ground-up efforts are related to the "experimentalist approach" in which businesses and governments jointly test new technologies and monitor one another's performance (Sabel and Victor, 2022).

Informal rules also influence structural credibility regarding expected benefits from new investments. In off-grid solar programs community norms determine who pays for, maintains, and profits from off-grid solar systems; when these norms function well, projects can more credibly promise jobs. Their effectiveness often depends on how they interact with formal institutions such as property rights and electoral rules (Aklin, Cheng, and Urpelainen, 2021). Where the two sets of rules complement each other, informal monitoring can deter free riding while well-governed projects generate tangible gains.

4.2 State Capacity

State capacity refers to the government's ability to design, fund, and enforce policy (Berwick and Christia, 2018). Scholars have linked it to outcomes such as long-run economic growth, government service provision (Alik-Lagrange et al., 2021), and climate policy (Meckling and Benkler, 2024; Ward, Cao, and Mukherjee, 2014). Scholars usually disaggregate state capac-

ity into coercive power, bureaucratic capacity, and revenue extractive (Cingolani, Thomsson, and De Crombrugghe, 2015; Levi, 1988).

State capacity conditions both strategic and structural credibility (Meckling and Nahm, 2022). We explore two channels: property rights and bureaucratic capacity.

4.2.1 Property Rights

Secure property rights bolster strategic credibility by reducing hold-up problems from expropriation fears, which are relevant for businesses making risk investments (Acemoglu and Johnson, 2005; North and Weingast, 1989). Outright expropriation is rare today but occurs in subtle ways like intellectual property theft. The risks are still tangible. Chile plans to nationalize the country's lithium industry, which will not have an isolated effect, since clean energy technologies depend on long supply chains. When these investments involve specific assets, such as a mine, hold up problems are acute and can deter investment (Williamson, 1989).

4.2.2 Bureaucratic Capacity

The ability to implement laws despite societal group opposition is critical to institutionalize reforms (Evans, 1995; Johnson, 1982; Skocpol, 1985). This capacity is particularly relevant for industrial policy, which depends on striking a balance between autonomy and embeddedness of government officials and business (Rodrik, 2004). Professional agencies in many industrialized democracies can enforce laws despite political fights (Miller, 2000). In much of the developing world, by contrast, limited resources, patronage politics, and clientelistic legacies reduce the state's independence (Hicken, 2011).

Limited bureaucratic capacity can undermine both strategic and structural credibility (Cingolani, Thomsson, and De Crombrugghe, 2015). Without skilled staff and clear lines of authority, governments cannot monitor energy transition policies, enforce compensation schemes, or adjust them when they underperform. Weak oversight also leaves room for

capture, as rival agencies and special interests reshape programs to serve their own goals. In South Africa, bureaucracies involved in renewable energy operate under coal-oriented superiors and lack autonomy to deliver on green mandates. In India, political parties can manipulate electricity provision for electoral reward (Baskaran, Min, and Uppal, 2015; Min and Golden, 2014).

The European Union's Carbon Border Adjustment Mechanism (CBAM) illustrates how bureaucratic capacity affects domestic clean energy politics abroad. While compliance falls to firms, this process depends heavily on national infrastructure and capacity for monitoring and reporting. Many developing countries lack the administrative infrastructure to meet technical requirements (Eicke et al., 2021). Where capacity is weak, CBAM may impose costs without catalyzing investment; where it is strong, the policy could reinforce local support for green industrialization.

4.3 International Constraints

International constraints affect both types of credibility in three main ways. First, countries have differing access to international finance and global value chains, which influences their capacity to fund clean energy projects and deliver local benefits (Allan and Nahm, 2025). Second, domestic commitment failures in wealthy countries can freeze climate finance flows that developing countries need, which undercuts credibility in emerging economies (Gaikwad, Genovese, and Tingley, 2025). Third, international regimes and organizations influence resources and information, shaping expectations of accountability for broken promises (Koremenos, 2001).

4.3.1 Industrial Capabilities and Global Supply Chains

Industrial capacity influences the co-benefits a country can capture from the energy transition. In electric vehicle supply chains, for example, some states own critical minerals but cannot refine or assemble them, whereas others can manufacture but lack inputs (Meckling and

Nahm, 2019). Governments are already crafting strategies to bolster local capacity; South Africa's Localization Support Fund channels resources into domestic transmission hardware production. Industrial capacity varies with factors such as natural resource endowments, industrial legacies, global value chain position, and technological complexity (Hughes and Meckling, 2018; Nahm, 2017).

Policies that could create local benefits, such as nationalization, can undermine efforts to foster a stable investment environment via secure property rights (Henisz, 2000). Multinationals posses the capital and know-how for large projects, but may stay away if they fear expropriation. Solving one credibility problem can worsen another.

4.3.2 International Climate Finance

Adequate climate finance is essential for clean energy projects in developing countries. Without it, policies lack structural credibility because promised investments to countries and communities rarely materialize (Landis and Bernauer, 2012).

Domestic politics in donor countries can dampen the supply of climate finance (Buntaine and Prather, 2018; Gaikwad, Genovese, and Tingley, 2025). When donor countries cannot build domestic constituencies around climate finance, it undermines the credibility of their international promises. This logic follows the classic two-level game dynamic, where domestic outcomes influence international negotiations and vice versa (Putnam, 1988).

Climate finance commitment problems are not insurmountable. Countries could structure aid to enhance its credibility. Gaikwad, Genovese, and Tingley (2025) show that having donor country firms partner with recipient country actors builds public support in the donor country, potentially making commitments more credible.

Climate finance challenges can also collide with emerging trade measures like CBAM. Critics argue that carbon tariffs unfairly penalize countries that contributed little to historical emission and, without foreign finance, lack capacity to comply (Pisani-Ferry, Mauro, and Zettelmeyer, 2025).

4.3.3 International Organizations

International organizations influence credibility challenges through trade regimes, development banks, and information provision. First, green industrial subsidies meant to build domestic coalitions can violate WTO rules, pitting the goal of local support against commitments to open trade (Colgan, Green, and Hale, 2021; Lewis, 2014). Ironically, policymakers designed these same trade regimes so that countries could credibly commit to open trade despite domestic opposition. Navigating these trade-offs will depend on each country's reliance on global commerce.

Development banks can enhance structural credibility in the eyes of businesses and workers by lowering green project capital costs. The World Bank could fund renewables and withdraw from fossil fuel ventures, for instance (O'Brien-Udry, 2023). Yet international organizations may have limited leverage due to weak enforcement and geopolitical considerations (Stone, 2012; Vreeland, 2003).

International organizations also provide information that could promote transparency, making it easier for publics, investors, and governments to monitor commitments (Keohane, 1984; Koremenos, 2001). When information is reliable, leaders who renege on green pledges face stronger domestic and international sanctions; where it is scarce, businesses, workers, and voters might not view commitments as credible.

5 Research Priorities

5.1 Decarbonizing the Developing World

Institutions, state capacity, and international constraints use old theory to open new inquiries into how governments can address credibility challenges in the clean energy transition. Our review illustrates how these ideas apply to developing countries and notes existing work that does so, while highlighting how systematic tests remain scarce outside industrialized

democracies.

Future research should examine each factor—institutions, state capacity, and international constraints—independently and jointly. The variables could act as complements or substitutes. A country might, for example, offset fragmented business-state relations with strong bureaucratic capacity and secure property rights.

Studying institutional features such as transparency will require new data at national and subnational scales (e.g., Deese et al., 2025). Since many clean energy investments involve local decisions like wind turbine siting, such measures should be spatially granular.

5.2 Disaggregating Policy Adoption

Most research asks whether countries adopt any mitigation laws. A credibility lens pushes scholars to disaggregate policies to consider factors such as which actors are targeted, which could affect their incentives to oppose or repeal reforms. Business-state relations might be more important for understanding when laws focus on compensating businesses, while electoral institutions might be more salient for climate policies that affect consumers (Finnegan et al., 2025).

Measuring climate policymaking remains difficult (Lieberman and Ross, 2025). Existing databases, such as the Grantham Institute's Climate Change Laws of the World, catalog statues but do not assess their credibility, although these policies correlate with emissions reductions (Eskander and Fankhauser, 2020). Promising research avenues include examining quantifiable metrics such as fossil fuel taxes and subsidies (Ross, Hazlett, and Mahdavi, 2017), and surveying climate policy experts (Victor, Lumkowsky, and Dannenberg, 2022). More work is needed to capture the nuances of climate policy instruments across countries and time.

Researchers should continue to examine subnational climate policy-making. Provincial and municipal governments often control siting, permitting, and local taxes, which are factors that could affect mitigation policy's durability and tangible benefits. Much existing work

examines the United States and European countries (Bulkeley and Kern, 2006; Karapin, 2016; Rabe, 2004; Stokes, 2020; Trachtman, 2020). Emerging economy studies provide opportunities to study how factors such as administrative capacity and business-state relations travel (Gong, 2025).

Finally, scholars should examine climate institutions, the formal arrangements for how states organize climate policymaking (Dubash, 2021; Guy, Shears, and Meckling, 2023). These institutions could enhance strategic credibility by insulating rules from day-to-day politics and fostering expertise needed for enforcement. Understanding these institutions could explain why similar laws are more effective in certain countries than others.

5.3 Policy Implementation

Implementation has received relatively less attention than adoption, despite being a source of the gap between commitments and emissions (Fransen et al., 2023). The credibility framework suggests that scholars should examine two linked questions: whether rules are enforced, subsidies disbursed, and penalties applied over time (strategic credibility); and whether projects materialize quickly enough and generate the promised local benefits (structural credibility).

Studying implementation will require analysis at the level of the transformations required by the clean energy transition, such as grid expansion, renewable deployment, and vehicle electrification. Relevant outcomes include permitting time, construction speed, and local economic benefits. Speed matters because the energy transition must occur rapidly to avoid global warming's worst damages.

Scholars should explore the relationship between these outcomes and the factors thought to enhance credibility. Aklin, Cheng, and Urpelainen (2021), for example, shows how governments that can better solve commitment problems have deployed more renewable energy.

Moving beyond executives and legislatures, future work must analyze how regulators draft rules, agencies enforce them, and courts review disputes (Voeten, 2025a). These are all vital

facets of implementation, and the extent to which governments can address issues such as regulatory autonomy could affect their ability to resolve credibility challenges. Cross-national work could link agency budgets, administrative staff, and judicial review to decarbonization.

5.4 Public Opinion

Public opinion research anchored around credibility would study whether citizens believe governments will stick to climate commitments (strategic), and whether households and workers expect the transition to deliver local benefits (structural). Much opinion research still only measures belief in climate science or general climate policy support (for reviews, see Bergquist, Mildenberger, and Stokes, 2020; Egan and Mullin, 2017; Gazmararian, Mildenberger, and Tingley, 2025). Research in high-income democracies has begun to probe credibility-related considerations, such as expected benefits from clean energy (Ansolabehere and Konisky, 2014; Carley and Konisky, 2020; Gazmararian and Tingley, 2023). Comparable evidence is sparse in developing countries, with some exceptions (Alkon, Hadden, and Su, 2025; Hsiao and Kuipers, 2025).

Because the clean energy transition's effects are spatially concentrated, national surveys can miss communities with coal mining, automobile manufacturing, or wind farms, whose credibility beliefs matter most (Gaikwad, Genovese, and Tingley, 2022; Gazmararian, 2024). Targeted surveys, interviews, and focus groups in places affected by decarbonization have demonstrated promise (Carley, Evans, and Konisky, 2018; Silva, Carley, and Konisky, 2023), and should be expanded to incorporate high-resolution labor-market and project-deployment data to connect local perceptions with energy transition and electoral outcomes.

5.5 Elites

Elites write and enforce climate policy, so their beliefs and preferences are central to the clean energy transition, especially in developing countries (Bayulgen, 2022). Research in the United States shows that legislative staffers systematically underestimate how much

constituents support climate policy (Hertel-Fernandez, Mildenberger, and Stokes, 2019), while recent work documents similar misperceptions in Indonesia (Hsiao and Kuipers, 2025). Future work should build on these studies to understand the interaction of public opinion and elites in shaping climate policy adoption and implementation.

Researchers should also examine causal mechanisms linking institutions, state capacity, and international constraints to the beliefs, attitudes, and behaviors of political leaders. Although the correspondence between public opinion and public policy is well-studied in other domains (Page and Shapiro, 1992), the climate arena remains under-explored (Schaffer, Oehl, and Bernauer, 2022).

5.6 Compensating Energy Transition "Losers"

While research on compensating climate policy "losers" is growing (Bolet, Green, and Gonzalez-Eguino, 2024; Kono, 2020), findings from individual countries may not travel cross-nationally. Single case studies are valuable for parsing causal mechanisms, but more systematic work is needed to understand the political effects of compensation, and credibility's moderating role.

Scholars also know less about when governments offer compensation. Previous research predicts higher likelihood where corporatist business-state ties ease bargaining (Meckling and Nahm, 2022; Mildenberger, 2020). Yet few studies treat the supply of compensation as the outcome, which might not be automatic due to elite misperceptions or budget constraints.

We also know little about the implementation of compensation, which could matter for its perceived durability and practical effects. Policy analysts viewed the Inflation Reduction Act's energy community tax credit, for instance, as ineffective because the qualification thresholds were too broad and the bonus was too little to shift firm investment decisions (Raimi and Pesek, 2022). Comparative research should track the design and implementation of compensation policies, such as conditionality rules and monitoring capacity, to explain why some programs convert opponents into supporters while others fail.

Climate politics should build upon insights from scholarship on past economic transformations such as agriculture mechanization, trade liberalization, and technological displacement. There is a vast literature on compensating globalization's losers that is informative (Walter, 2021). Mapping similarities and differences with the clean energy transition can clarify when tools, such as income support, retraining, and place-based aid succeed in building local support and ameliorating economic disruption (Hanson, Rodrik, and Sandhu, 2025; Mukherjee and Raimi, 2023).

5.7 Policy Feedback Effects

Scholars should study the conditions when climate policies have positive feedback effects, where reforms create constituencies that support the clean energy transition (e.g., Pierson, 1993). There is already work that helps understand how sequencing could enable mitigation policy to ratchet up stringency (Meckling, 2015). There are also analogs from other issue areas such as healthcare and welfare reform. It's an open question the extent to which policy reforms in these other issue areas generalize to the clean energy transition, given the intense, geographically concentrated distributive effects of the clean energy transition and long time horizons involved. While there are some policy feedback studies of the clean energy transition in the United States (e.g., Stokes, 2020), there is less work in developing countries.

It would be useful for studies to differentiate between policy feedbacks that alter the political behavior of businesses and citizens. Some reforms could sustain themselves by creating supporters among businesses beneficiaries, whereas other policies could build a base of public support (Campbell, 2012). Scholars should also examine how firms and voters respond to policy retrenchment, especially considering the partial repeal of the IRA in the United States.

Finally, scholars should explore trade-offs with policies to lead to the enactment of durable mitigation policies. Green industrial policies create more concentrated local economic benefits that could expand climate coalitions, but also introduce risks such as rent seeking and

regulatory capture (Meckling, 2015; Rodrik, 2014). While there is extensive economics research on industrial policy (Juhasz, Lane, and Rodrik, 2024), political scientists have focused more on how climate policies are adopted than trade-offs in their implementation (but see Matsuo and Schmidt, 2019).

6 Conclusion

The transition from a fossil fuel-based to a carbon-neutral economy confronts significant political barriers. This review integrates many of previous comparative and international political economy theories around credibility challenges and identifies new lines of research.

There are many aspects of climate politics that cannot be reduced to credibility. Our aim is not to assert a singular theoretical approach but to provide an integrative review. Coordination challenges in transforming complex energy systems would persist even if governments could make perfectly credible commitments and offer maximal local benefits to supporters (Goedeking and Meckling, 2024). We seek to offer a political economy foundation that scholars can build upon by layering additional factors such as norms (Besley and Persson, 2023), identity (Zucker, 2024), scientific expertise (Haas, 1992), and altruism (Bechtel, Genovese, and Scheve, 2019; Kennard, 2021).

Our review points to the need to make the energy transition less dependent on credibility. Structural shifts that lower technology costs, reshape market incentives, and sequence reforms to build supportive constituencies could reduce the need for governments to make long-term promises (Meckling, 2015). Policies that drive down renewable costs or lock in early infrastructure may create self-reinforcing adoption even under short-term political horizons. Yet such strategies still face political obstacles, as incumbents may resist cost-lowering reforms or block sequencing that threatens their rents. Understanding when and how governments can restructure incentives so markets sustain decarbonization with less reliance on durable political commitments is a key agenda for future work.

The review also bridges domestic and international climate politics explanations. Rather than treating domestic distributive politics and international collective action problem as competing paradigms, we emphasize their interactions. To understand the opportunities and challenges that developed and developing countries face in combating climate change requires accounting for the interplay of credibility with domestic and international politics.

References

Acemoglu, Daron (2003). "Why Not a Political Coase Theorem? Social Conflict, Commitment, and Politics." *Journal of Comparative Economics* 31.4, 620–652.

Acemoglu, Daron and Simon Johnson (2005). "Unbundling Institutions." *Journal of Political Economy* 113.5, 949–995.

Aklin, Michaël (2024). "The Political Logic of Just Transition Policies." *Climate Policy* 25.3, 319–334.

Aklin, Michaël, Chao-Yo Cheng, and Johannes Urpelainen (2021). "Inequality in Policy Implementation: Caste and Electrification in Rural India." *Journal of Public Policy* 41.2, 331–359.

Aklin, Michaël and Matto Mildenberger (2020). "Prisoners of the Wrong Dilemma: Why Distributive Conflict, Not Collective Action, Characterizes the Politics of Climate Change." *Global Environmental Politics* 20.4, 4–27.

Aklin, Michaël and Johannes Urpelainen (2013). "Political Competition, Path Dependence, and the Strategy of Sustainable Energy Transitions." *American Journal of Political Science* 57.3, 643–658.

— (2018). *Renewables: The Politics of a Global Energy Transition*. MIT Press.

Alik-Lagrange, Arthur, Sarah K Dreier, Milli Lake, and Alesha Porisky (2021). "Social protection and state-society relations in environments of low and uneven state capacity." *Annual Review of Political Science* 24, 151–174.

Alkon, Meir, Jennifer Hadden, and Mingyang Su (2025). "Public Opposition to Coal-Fired Power in Emerging Economies." *Energy Policy* 203, 114595.

Allan, Bentley B. and Jonas Nahm (2025). "Strategies of Green Industrial Policy: How States Position Firms in Global Supply Chains." *American Political Science Review* 119.1, 420–434.

Alt, James (2019). "Twenty Years of Transparency Research." *Public Sector Economics* 43.1, 5–13.

Anderson, John E (2017). "Trust in government and willingness to pay taxes in transition countries." *Comparative Economic Studies* 59.1, 1–22.

Anderson, Sarah E., Mark T. Buntaine, Mengdi Liu, and Bing Zhang (2019). "Non-Governmental Monitoring of Local Governments Increases Compliance with Central Mandates: A National-Scale Field Experiment in China." *American Journal of Political Science* 63.3, 626–643.

Ansolabehere, Stephen and David Konisky (2014). *Cheap and Clean: How Americans Think about Energy in the Age of Global Warming*. MIT Press.

Arel-Bundock, Vincent and Krzysztof Pelc (2024). "Buy-in for Buyouts: Attitudes Toward Compensation for Reforms." *The Journal of Politics* Just Accepted.

Arnold, R. Douglas (1990). *The Logic of Congressional Action*. Yale University Press.

Baehr, Christian, Fiona Bare, and Vincent Heddesheimer (2025). "Climate Exposure Drives Firm Political Behavior: Evidence from Earnings Calls and Lobbying Data." *American Journal of Political Science* Forthcoming.

Bain, Paul G. et al. (2016). "Co-Benefits of Addressing Climate Change Can Motivate Action around the World." *Nature Climate Change* 6.2, 154–157.

Baker, Lucy, Peter Newell, and Jon Phillips (2014). "The Political Economy of Energy Transitions: The Case of South Africa." *New Political Economy* 19.6, 791–818.

Baldwin, Elizabeth, Sanya Carley, and Sean Nicholson-Crotty (2019). "Why Do Countries Emulate Each Others' Policies? A Global Study of Renewable Energy Policy Diffusion." *World Development* 120, 29–45.

Barrett, Scott (2003). *Environment and Statecraft: The Strategy of Environmental Treaty-Making*. Oxford University Press.

Baskaran, Thushyanthan, Brian Min, and Yogesh Uppal (2015). "Election Cycles and Electricity Provision: Evidence from a Quasi-Experiment with Indian Special Elections." *Journal of Public Economics* 126, 64–73.

Bättig, Michèle and Thomas Bernauer (2009). "National Institutions and Global Public Goods: Are Democracies More Cooperative in Climate Change Policy?" *International Organization* 63.2, 281–308.

Bayer, Patrick and Johannes Urpelainen (2016). "It Is All about Political Incentives: Democracy and the Renewable Feed-in Tariff." *Journal of Politics* 78.2, 603–619.

Bayulgen, Oksan (2022). *Twisting in the Wind: The Politics of Tepid Transitions to Renewable Energy*. University of Michigan Press.

Bayulgen, Oksan and Jeffrey W. Ladewig (2017). "Vetoing the Future: Political Constraints and Renewable Energy." *Environmental Politics* 26.1, 49–70.

Bechtel, Michael, Federica Genovese, and Kenneth Scheve (2019). "Interests, Norms and Support for the Provision of Global Public Goods: The Case of Climate Co-operation." *British Journal of Political Science* 49.4, 1333–1355.

Bechtel, Michael and Massimo Mannino (2023). "Ready When the Big One Comes? Natural Disasters and Mass Support for Preparedness Investment." *Political Behavior* 45.3, 1045–1070.

Bechtel, Michael and Kenneth Scheve (2013). "Mass Support for Global Climate Agreements Depends on Institutional Design." *Proceedings of the National Academy of Sciences* 110.34, 13763–13768.

Beiser-McGrath, Liam F and Thomas Bernauer (2024). "How Do Pocketbook and Distributional Concerns Affect Citizens' Preferences for Carbon Taxation?" *Journal of Politics* 86.2, 551–564.

Bell, Shannon Elizabeth and Richard York (2010). "Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia." *Rural Sociology* 75.1, 111–143.

Bergquist, Parrish, Matto Mildenberger, and Leah C. Stokes (2020). "Combining Climate, Economic, and Social Policy Builds Public Support for Climate Action in the US." *Environmental Research Letters* 15.054019.

Bernauer, Thomas (2013). "Climate Change Politics." *Annual Review of Political Science* 16.1, 421–448.

Berwick, Elissa and Fotini Christia (2018). "State capacity redux: Integrating classical and experimental contributions to an enduring debate." *Annual Review of Political Science* 21, 71–91.

Besley, Timothy and Torsten Persson (2023). "The Political Economics of Green Transitions." *The Quarterly Journal of Economics* 138.3, 1863–1906.

Betcherman, Gordon (2012). "Labor market institutions: A review of the literature." *World Bank Policy Research Working Paper* 6276.

Blankenship, Brian, Michaël Aklin, Johannes Urpelainen, and Vagisha Nandan (2022). "Jobs for a Just Transition: Evidence on Coal Job Preferences from India." *Energy Policy* 165, 112910.

Blyth, William et al. (2007). "Investment Risks Under Uncertain Climate Change Policy." *Energy Policy* 35.11, 5766–5773.

Bolet, Diane, Fergus Green, and Mikel Gonzalez-Eguino (2024). "How to Get Coal Country to Vote for Climate Policy." *American Political Science Review* 118.3, 1344–1359.

Bosetti, Valentina and David G. Victor (2011). "Politics and Economics of Second-Best Regulation of Greenhouse Gases: The Importance of Regulatory Credibility." *The Energy Journal* 32.1.

Breetz, Hanna, Matto Mildenberger, and Leah C. Stokes (2018). "The Political Logics of Clean Energy Transitions." *Business and Politics* 20.4, 492–522.

Brunner, Steffen, Christian Flachsland, and Robert Marschinski (2012). "Credible Commitment in Carbon Policy." *Climate Policy* 12.2, 255–271.

Bulkeley, Harriet and Kristine Kern (2006). "Local Government and the Governing of Climate Change in Germany and the UK." *Urban Studies* 43.12, 2237–2259.

Buntaine, Mark T. and Lauren Prather (2018). "Preferences for Domestic Action Over International Transfers in Global Climate Policy." *Journal of Experimental Political Science* 5.2, 73–87.

Busby, Joshua W and Sarang Shidore (2021). "Solar federalism: What explains the variation in solar capacity additions by India's states?" *Energy Research & Social Science* 71, 101815.

Bush, Sarah and Amanda Clayton (2023). "Facing Change: Gender and Climate Change Attitudes Worldwide." *American Political Science Review* 117.2, 591–608.

Caggiano, Holly, Sara M. Constantino, Chris Greig, and Elke U. Weber (2024). "Public and Local Policymaker Preferences for Large-Scale Energy Project Characteristics." *Nature Energy* 9.10, 1230–1240.

Campbell, Andrea Louise (2012). "Policy Makes Mass Politics." *Annual Review of Political Science* 15.1, 333–351.

Cao, Xun, Andrew Kleit, and Chuyu Liu (2016). "Why Invest in Wind Energy? Career Incentives and Chinese Renewable Energy Politics." *Energy Policy* 99, 120–131.

Cao, Xun, Helen V. Milner, Aseem Prakash, and Hugh Ward (2014). "Research Frontiers in Comparative and International Environmental Politics: An Introduction." *Comparative Political Studies* 47.3, 291–308.

Carley, Sanya, Tom Evans, and David Konisky (2018). "Adaptation, Culture, and the Energy Transition in American Coal Country." *Energy Research & Social Science* 37, 133–139.

Carley, Sanya, David M Konisky, Zoya Atiq, and Nick Land (2020). "Energy Infrastructure, NIMBYism, and Public Opinion: A Systematic Literature Review of Three Decades of Empirical Survey Literature." *Environmental Research Letters* 15.9, 093007.

Carley, Sanya and David M. Konisky (2020). "The Justice and Equity Implications of the Clean Energy Transition." *Nature Energy* 5.8, 569–577.

Chelminski, Kathryn (2022). "Climate Finance Effectiveness: A Comparative Analysis of Geothermal Development in Indonesia and the Philippines." *The Journal of Environment & Development* 31.2, 139–167.

Cingolani, Luciana, Kaj Thomsson, and Denis De Crombrugghe (2015). "Minding Weber more than ever? The impacts of state capacity and bureaucratic autonomy on development goals." *World Development* 72, 191–207.

Colantone, Italo, Livio Di Lonardo, Yotam Margalit, and Marco Percoco (2024). "The Political Consequences of Green Policies: Evidence from Italy." *American Political Science Review* 118.1, 108–126.

Colgan, Jeff, Jessica F. Green, and Thomas Hale (2021). "Asset Revaluation and the Existential Politics of Climate Change." *International Organization* 75.2, 586–610.

Cory, Jared, Michael Lerner, and Iain Osgood (2021). "Supply Chain Linkages and the Extended Carbon Coalition." *American Journal of Political Science* 65.1, 69–87.

Cullenward, Danny and David G. Victor (2021). *Making Climate Policy Work*. Polity Press.

Davidson, Michael R, Da Zhang, Weiming Xiong, Xiliang Zhang, and Valerie J Karplus (2016). "Modelling the potential for wind energy integration on China's coal-heavy electricity grid." *Nature Energy* 1.7, 1–7.

Davis, Steven J. et al. (2018). "Net-Zero Emissions Energy Systems." *Science* 360.6396, eaas9793.

Dechezleprêtre, Antoine et al. (2025). "Fighting Climate Change: International Attitudes Toward Climate Policies." *American Economic Review* 115.4, 1258–1300.

Deese, Brian et al. (2025). *Global Clean Investment Monitor: Government Support for Electric Vehicles and Batteries*. Research Commentary RC 2025-02. Cambridge, MA: MIT Center for Energy and Environmental Policy Research (CEEPR).

Dixit, Avinash and John Londregan (1995). "Redistributive Politics and Economic Efficiency." *American Political Science Review* 89.4, 856–866.

Downie, Christian (2017). "Business Actors, Political Resistance, and Strategies for Policymakers." *Energy Policy* 108, 583–592.

Dubash, Navroz K. (2013). "The Politics of Climate Change in India: Narratives of Equity and Cobenefits." *WIREs Climate Change* 4.3, 191–201.

Dubash, Navroz K. (2021). "Varieties of Climate Governance: The Emergence and Functioning of Climate Institutions." *Environmental Politics* 30.sup1, 1–25.

Egan, Patrick J. and Megan Mullin (2017). "Climate Change: US Public Opinion." *Annual Review of Political Science* 20.1, 209–227.

Egli, Florian, Nicolas Schmid, and Tobias Schmidt (2022). "Backlash to Fossil Fuel Phase-Outs: The Case of Coal Mining in US Presidential Elections." *Environmental Research Letters* 17.9, 094002.

Eicke, Laima, Silvia Weko, Maria Apergi, and Adela Marian (2021). "Pulling up the Carbon Ladder? Decarbonization, Dependence, and Third-Country Risks from the European Carbon Border Adjustment Mechanism." *Energy Research & Social Science* 80, 102240.

Eskander, Shaikh and Sam Fankhauser (2020). "Reduction in Greenhouse Gas Emissions from National Climate Legislation." *Nature Climate Change* 10.8, 750–756.

Evans, Peter B (1995). *Embedded autonomy: States and industrial transformation*. Princeton University Press.

Falkner, Robert (2016). "A Minilateral Solution for Global Climate Change? On Bargaining Efficiency, Club Benefits, and International Legitimacy." *Perspectives on Politics* 14.1, 87–101.

Fearon, James D. (1994). "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88.3, 577–592.

— (1997). "Signaling Foreign Policy Interests." *Journal of Conflict Resolution* 41.1, 68–90.

— (2011). "Self-Enforcing Democracy." *The Quarterly Journal of Economics* 126.4, 1661–1708.

Finnegan, Jared (2022a). "Changing Prices in a Changing Climate: Electoral Competition and Fossil Fuel Taxation." *Comparative Political Studies* 56.8, 1257–1290.

— (2022b). "Institutions, Climate Change, and the Foundations of Long-Term Policymaking." *Comparative Political Studies* 55.7, 1198–1235.

Finnegan, Jared, Phillip Y Lipscy, Jonas Meckling, and Florence Metz (2025). "The Institutional Sources of Economic Transformation: Insulation and Compensation in the Politics of Energy Transitions." *The Journal of Politics* Just Accepted.

Fisher, John C. (1974). *Energy Crises in Perspective*. John Wiley & Sons.

Fransen, Taryn et al. (2023). "Taking Stock of the Implementation Gap in Climate Policy." *Nature Climate Change* 13.8, 752–755.

Gaikwad, Nikhar, Federica Genovese, and Dustin Tingley (2022). "Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World's Two Largest Democracies." *American Political Science Review* 116.4, 1165–1183.

— (2025). "Climate Action from Abroad: Assessing Mass Support for Cross-Border Climate Transfers." *International Organization* 79.1, 146–172.

Gandhi, Jennifer and Ellen Lust-Okar (2009). "Elections Under Authoritarianism." *Annual Review of Political Science* 12.1, 403–422.

Gazmararian, Alexander F. (2024). "Fossil Fuel Communities Support Climate Policy Coupled with Just Transition Assistance." *Energy Policy* 184, 113880.

— (2025a). "Sources of Partisan Change: Evidence from the Shale Gas Shock in American Coal Country." *The Journal of Politics* 87.2, 601–615.

— (2025b). "Valuing the Future: Changing Time Horizons and Policy Preferences." *Political Behavior* 47, 553–572.

Gazmararian, Alexander F., Matto Mildenberger, and Dustin Tingley (2025). "Public Opinion Foundations of the Clean Energy Transition." *Environmental Politics* Forthcoming.

Gazmararian, Alexander F. and Helen V. Milner (2025a). "Experience and Self-Interest: Diverging Responses to Global Warming." *American Journal of Political Science* Accepted.

— (2025b). "Political Cleavages and Changing Exposure to Global Warming." *Comparative Political Studies* 58.9, 1965–1999.

— (2026). *Fault Lines: The New Political Economy of a Warming World*. Princeton University Press.

Gazmararian, Alexander F. and Dustin Tingley (2023). *Uncertain Futures: How to Unlock the Climate Impasse*. Cambridge University Press.

— (2024). "Reimagining Net Metering: A Polycentric Model for Equitable Solar Adoption in the United States." *Energy Research & Social Science* 108, 103374.

Geels, Frank W., Benjamin K. Sovacool, Tim Schwanen, and Steve Sorrell (2017). "Sociotechnical Transitions for Deep Decarbonization." *Science* 357.6357, 1242–1244.

Genovese, Federica (2019). "Sectors, Pollution, and Trade: How Industrial Interests Shape Domestic Positions on Global Climate Agreements." *International Studies Quarterly* 63.4, 819–836.

Goedeking, Nicholas and Jonas Meckling (2024). "Coordinating the Energy Transition: Electrifying Transportation in California and Germany." *Energy Policy* 195, 114321.

Gong, Weila (2025). *Implementing a Low-Carbon Future: Climate Leadership in Chinese Cities*. Oxford University Press.

Gong, Weila and Joanna I. Lewis (2024). "The Politics of China's Just Transition and the Shift Away from Coal." *Energy Research & Social Science* 115, 103643.

Gourevitch, Peter (1978). "The Second Image Reversed: The International Sources of Domestic Politics." *International Organization* 32.4, 881–912.

Green, Fergus and Ajay Gambhir (2020). "Transitional Assistance Policies for Just, Equitable and Smooth Low-Carbon Transitions: Who, What and How?" *Climate Policy* 20.8, 902–921.

Green, Jessica F. (2025). *Existential Politics: Why Global Climate Institutions Are Failing and How to Fix Them*. Princeton University Press.

Green, Jessica F., Jennifer Hadden, Thomas Hale, and Paasha Mahdavi (2022). "Transition, Hedge, or Resist? Understanding Political and Economic Behavior toward Decarbonization in the Oil and Gas Industry." *Review of International Political Economy* 29.6, 2036–2063.

Grubler, Arnulf (2012). "Energy Transitions Research: Insights and Cautionary Tales." *Energy Policy* 50, 8–16.

Grübler, Arnulf, Nebojša Nakićenović, and David G Victor (1999). "Dynamics of Energy Technologies and Global Change." *Energy Policy* 27.5, 247–280.

Guy, Johnathan, Esther Shears, and Jonas Meckling (2023). "National Models of Climate Governance among Major Emitters." *Nature Climate Change* 13.2, 189–195.

Haas, Peter M. (1992). "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46.1, 1–35.

Hale, Thomas (2020). "Transnational Actors and Transnational Governance in Global Environmental Politics." *Annual Review of Political Science* 23.1, 203–220.

— (2024). *Long Problems: Climate Change and the Challenge of Governing across Time*. Princeton University Press.

Hanson, Gordon H. (2023). *Local Labor Market Impacts of the Energy Transition: Prospects and Policies*. Tech. rep. 30871. NBER.

Hanson, Gordon H., Dani Rodrik, and Rohan Sandhu (2025). *The U.S. Place-Based Policy Supply Chain*. Working Paper.

Harrison, Kathryn and Lisa Sundstrom (2007). "The Comparative Politics of Climate Change." *Global Environmental Politics* 7.4, 1–18.

— eds. (2010). *Global Commons, Domestic Decisions*. MIT Press.

Heald, David (2006). "Varieties of Transparency." In: *Transparency: The key to better governance?* Ed. by Christopher Hood and David Heald. Oxford University Press, 25–46.

Healy, Andrew and Neil Malhotra (2009). "Myopic Voters and Natural Disaster Policy." *American Political Science Review* 103.3, 387–406.

Heddesheimer, Vincent, Hanno Hilbig, and Erik Voeten (2025). "The Green Transition and Political Polarization Along Occupational Lines." *American Political Science Review* Accepted.

Helmke, Gretchen and Steven Levitsky (2004). "Informal institutions and comparative politics: A research agenda." *Perspectives on politics* 2.4, 725–740.

Henisz, W. (2000). "The Institutional Environment for Multinational Investment." *Journal of Law, Economics, and Organization* 16.2, 334–364.

Hertel-Fernandez, Alexander, Matto Mildenberger, and Leah C. Stokes (2019). "Legislative Staff and Representation in Congress." *American Political Science Review* 113.1, 1–18.

Hess, David J. (2014). "Sustainability Transitions: A Political Coalition Perspective." *Research Policy* 43.2, 278–283.

Hetherington, Marc J. (1998). "The Political Relevance of Political Trust." *American Political Science Review* 92.4, 791–808.

Hicken, Allen (2011). "Clientelism." *Annual Review of Political Science* 14.1, 289–310.

Hochstetler, Kathryn (2020). *Political Economies of Energy Transition: Wind and Solar Power in Brazil and South Africa*. Cambridge University Press.

Hochstetler, Kathryn and Manjana Milkoreit (2015). "Responsibilities in Transition: Emerging Powers in the Climate Change Negotiations." *Global Governance* 21.2, 205–226.

Holmstrom, Bengt (1979). "Moral Hazard and Observability." *The Bell Journal of Economics* 10.1, 74.

Hood, Christopher and David Heald (2006). *Transparency: The Key to Better Governance?* British Academy.

Hovi, Jon, Detlef Sprinz, and Arild Underdal (2009). "Implementing Long-Term Climate Policy: Time Inconsistency, Domestic Politics, International Anarchy." *Global Environmental Politics* 9.3, 20–39.

Howe, Peter D., Jennifer Marlon, Matto Mildenberger, and Brittany Shield (2019). "How Will Climate Change Shape Climate Opinion?" *Environmental Research Letters* 14.11, 113001.

Hsiao, Allan and Nicholas Kuipers (2025). "Climate Crisis and Policy Inaction in Indonesia." *American Journal of Political Science* Forthcoming.

Hsueh, Lily (2019). "Opening up the Firm: What Explains Participation and Effort in Voluntary Carbon Disclosure by Global Businesses? An Analysis of Internal Firm Factors and Dynamics." *Business Strategy and the Environment* 28.7, 1302–1322.

Huber, Robert A., Lukas Fesenfeld, and Thomas Bernauer (2020). "Political Populism, Responsiveness, and Public Support for Climate Mitigation." *Climate Policy* 20.3, 373–386.

Hughes, Llewelyn and Phillip Y. Lipscy (2013). "The Politics of Energy." *Annual Review of Political Science* 16.Volume 16, 2013, 449–469.

Hughes, Llewelyn and Jonas Meckling (2018). "Policy Competition in Clean Technology: Scaling up or Innovating Up?" *Business and Politics* 20.4, 588–614.

Hutchful, Eboe (2019). "The limits of corporatism as a concept and model." In: *Corporatism In Africa*. Routledge, 17–44.

Inchauste, Gabriela and David G. Victor, eds. (2017). *The Political Economy of Energy Subsidy Reform*. Directions in Development: Public Sector Governance. The World Bank.

IPCC (2022). "Summary for Policymakers." In: *Climate Change 2022: Mitigation of Climate Change*. Cambridge University Press.

IRENA (2021). *Renewable Energy and Jobs: Annual Review 2021*. Tech. rep. International Renewable Energy Agency.

Jacobs, Alan (2016). "Policy Making for the Long Term in Advanced Democracies." *Annual Review of Political Science* 19.1, 433–454.

Jacobs, Alan and J. Scott Matthews (2017). "Policy Attitudes in Institutional Context: Rules, Uncertainty, and the Mass Politics of Public Investment." *American Journal of Political Science* 61.1, 194–207.

Jaffe, Adam B., Richard G. Newell, and Robert N. Stavins (2005). "A Tale of Two Market Failures: Technology and Environmental Policy." *Ecological Economics* 54.2-3, 164–174.

Jensen, Nathan M. and Edmund Malesky (2018). *Incentives to Pander: How Politicians Use Corporate Welfare for Political Gain*. Cambridge University Press.

Jevons, William Stanley (1865). *The Coal Question; An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal Mines*. Macmillan & Co. London.

Johnson, Chalmers A. (1982). *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*. Stanford, CA: Stanford University Press.

Juhasz, Reka, Nathan Lane, and Dani Rodrik (2024). "The New Economics of Industrial Policy." *Annual Review of Economics* 16.213-242.

Karapin, Roger (2016). *Political Opportunities for Climate Policy: California, New York, and the Federal Government*. Cambridge University Press.

Kelsey, Nina (2018). "Industry Type and Environmental Policy: Industry Characteristics Shape the Potential for Policymaking Success in Energy and the Environment." *Business and Politics* 20.4, 615–642.

Kennard, Amanda (2020). "The Enemy of My Enemy: When Firms Support Climate Change Regulation." *International Organization* 74.2, 187–221.

— (2021). "My Brother's Keeper: Other-regarding Preferences and Concern for Global Climate Change." *Review of International Organizations* 16.2, 345–376.

Kennard, Amanda and Keith Schnakenberg (2023). "Global Climate Policy and Collective Action: A Comment." *Global Environmental Politics* 23.1.

Keohane, Robert O. (1984). *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton University Press.

Keohane, Robert O. and David G. Victor (2016). "Cooperation and Discord in Global Climate Policy." *Nature Climate Change* 6.6, 570–575.

Kim, Sung Eun, Johannes Urpelainen, and Joonseok Yang (2016). "Electric Utilities and American Climate Policy: Lobbying by Expected Winners and Losers." *Journal of Public Policy* 36.2, 251–275.

Köhler, Jonathan et al. (2019). "An Agenda for Sustainability Transitions Research: State of the Art and Future Directions." *Environmental Innovation and Societal Transitions* 31, 1–32.

Kono, Daniel (2020). "Compensating for the Climate: Unemployment Insurance and Climate Change Votes." *Political Studies* 68.1, 167–186.

Koremenos, Barbara (2001). "Loosening the Ties That Bind: A Learning Model of Agreement Flexibility." *International Organization* 55.2, 289–325.

Korppoo, Anna, Iselin Stensdal, and Marius Korsnes (2020). *Informal institutions in policy implementation: Comparing low carbon policies in China and Russia*. Edward Elgar Publishing.

Kydland, Finn and Edward Prescott (1977). "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85.3, 473–491.

Landis, Florian and Thomas Bernauer (2012). "Transfer Payments in Global Climate Policy." *Nature Climate Change* 2.8, 628–633.

Lerner, Michael and Iain Osgood (2023). "Across the Boards: Explaining Firm Support for Climate Policy." *British Journal of Political Science* 53.3, 934–957.

Levi, Margaret (1988). *Of rule and revenue*. Univ of California Press.

Levi, Margaret and Laura Stoker (2000). "Political Trust and Trustworthiness." *Annual Review of Political Science* 3.1, 475–507.

Levi, Sebastian, Christian Flachsland, and Michael Jakob (2020). "Political Economy Determinants of Carbon Pricing." *Global Environmental Politics* 20.2, 128–156.

Lewis, Joanna I (2012). *Green Innovation in China: China's Wind Power Industry and the Global Transition to a Low-Carbon Economy*. Columbia University Press.

— (2014). "The Rise of Renewable Energy Protectionism: Emerging Trade Conflicts and Implications for Low Carbon Development." *Global Environmental Politics* 14.4, 10–35.

Lieberman, Evan and Michael Ross (2025). "Government Responses to Climate Change." *World Politics* 71.1, 179–190.

Lim, Junghyun, Michaël Aklin, and Morgan R. Frank (2023). "Location Is a Major Barrier for Transferring US Fossil Fuel Employment to Green Jobs." *Nature Communications* 14.1, 5711.

Lipscy, Phillip Y. and Lee Schipper (2013). "Energy Efficiency in the Japanese Transport Sector." *Energy Policy* 56, 248–258.

Lockwood, Matthew (2018). "Right-Wing Populism and the Climate Change Agenda: Exploring the Linkages." *Environmental Politics* 27.4, 712–732.

— (2021). "Routes to Credible Climate Commitment: The UK and Denmark Compared." *Climate Policy* 21.9, 1234–1247.

Loorbach, Derk (2010). "Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework." *Governance* 23.1, 161–183.

Madden, Nathan J. (2014). "Green Means Stop: Veto Players and Their Impact on Climate-Change Policy Outputs." *Environmental Politics* 23.4, 570–589.

Mahdavi, Paasha, Cesar B Martinez-Alvarez, and Michael L Ross (2022). "Why do governments tax or subsidize fossil fuels?" *The Journal of Politics* 84.4, 2123–2139.

Mares, Isabela, Kenneth Scheve, and Christina Toenshoff (2025). "Compensation, Beliefs in State Intervention, and Support for the Energy Transition." *Comparative Political Studies*, 00104140251328009.

Martin, Cathie Jo and Duane Swank (2012). *The Political Construction of Business Interests: Coordination, Growth, and Equality*. Cambridge University Press.

Martinez, Ana, Pranav Moudgalya, and Dustin Tingley (2025). "Energy at the Fair: County Fair Sponsorship Patterns from the Energy Sector in the United States." *Energy Research & Social Science* Forthcoming.

Martinez-Alvarez, Cesar B., Chad Hazlett, Paasha Mahdavi, and Michael Ross (2022). "Political Leadership Has Limited Impact on Fossil Fuel Taxes and Subsidies." *Proceedings of the National Academy of Sciences* 119.47, e2208024119.

Matland, Richard E. and Donley T. Studlar (2004). "Determinants of Legislative Turnover: A Cross-National Analysis." *British Journal of Political Science* 34.1, 87–108.

Matsuo, Tyeler and Tobias S. Schmidt (2019). "Managing Tradeoffs in Green Industrial Policies: The Role of Renewable Energy Policy Design." *World Development* 122, 11–26.

McAllister, Jordan H. and Keith E. Schnakenberg (2022). "Designing the Optimal International Climate Agreement with Variability in Commitments." *International Organization* 76.2, 469–486.

Meadowcroft, James (2009). "What about the Politics? Sustainable Development, Transition Management, and Long Term Energy Transitions." *Policy Sciences* 42.4, 323–340.

Meckling, Jonas (2011). *Carbon Coalitions: Business, Climate Politics, and the Rise of Emissions Trading*. MIT Press.

— (2015). "Oppose, Support, or Hedge? Distributional Effects, Regulatory Pressure, and Business Strategy in Environmental Politics." *Global Environmental Politics* 15.2, 19–37.

Meckling, Jonas and Ari Benkler (2024). "State Capacity and Varieties of Climate Policy." *Nature Communications* 15.1, 9942.

Meckling, Jonas, Nina Kelsey, Eric Biber, and John Zysman (2015). "Winning Coalitions for Climate Policy." *Science* 349.6253, 1170–1171.

Meckling, Jonas, Phillip Y. Lipscy, Jared J. Finnegan, and Florence Metz (2022). "Why Nations Lead or Lag in Energy Transitions." *Science* 378.6615, 31–33.

Meckling, Jonas and Jonas Nahm (2019). "The Politics of Technology Bans: Industrial Policy Competition and Green Goals for the Auto Industry." *Energy Policy* 126, 470–479.

— (2022). "Strategic State Capacity: How States Counter Opposition to Climate Policy." *Comparative Political Studies* 55.3, 493–523.

Melnick, Justin and Alastair Smith (2025). "Shaming Paris: A Political Economy of Climate Commitments." *International Organization* 79.2, 281–305.

Mildenberger, Matto (2020). *Carbon Captured: How Business and Labor Control Climate Politics*. MIT Press.

Miller, Gary (2000). "Above politics: Credible commitment and efficiency in the design of public agencies." *Journal of Public Administration Research and Theory* 10.2, 289–328.

Min, Brian (2015). *Power and the Vote: Elections and Electricity in the Developing World*. Cambridge University Press.

Min, Brian and Miriam Golden (2014). "Electoral Cycles in Electricity Losses in India." *Energy Policy* 65, 619–625.

Montinola, Gabriella, Yingyi Qian, and Barry R. Weingast (1995). "Federalism, Chinese Style: The Political Basis for Economic Success in China." *World Politics* 48.1, 50–81.

Mukherjee, Srutakirti and Daniel Raimi (2023). *What Can Federal Place-Based Economic Policies Teach Us about the Energy Transition?* Tech. rep. 23-16. Resources for the Future.

Nahm, Jonas (2017). "Renewable Futures and Industrial Legacies: Wind and Solar Sectors in China, Germany, and the United States." *Business and Politics* 19.1, 68–106.

Newell, Peter and Matthew Paterson (1998). "A Climate for Business: Global Warming, the State and Capital." *Review of International Political Economy* 5.4, 679–703.

Nordhaus, William (1975). "The Political Business Cycle." *Review of Economic Studies* 42.2, 169.

North, Douglass (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

North, Douglass and Barry Weingast (1989). "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *The Journal of Economic History* 49.4, 803–832.

Nyang'oro, Julius E (2019). *Corporatism in Africa: comparative analysis and practice*. Routledge.

O'Brien-Udry, Cleo (2023). "Aid Withdrawal: Theory and Evidence from International Climate Politics." Unpublished Manuscript.

Olson, Mancur (1965). *The Logic of Collective Action*. Harvard University Press.

Ostrom, Elinor (2009). *A Polycentric Approach for Coping with Climate Change*. The World Bank.

Page, Benjamin I. and Robert Y. Shapiro (1992). *The Rational Public*. Chicago University Press.

Patashnik, Eric (2014). *Reforms at Risk*. Princeton University Press.

Peterson, Lauri (2021). "Silver Lining to Extreme Weather Events? Democracy and Climate Change Mitigation." *Global Environmental Politics* 21.1, 23–53.

Pierson, Paul (1993). "When Effect Becomes Cause: Policy Feedback and Political Change." *World Politics* 45.4, 595–628.

Pisani-Ferry, Jean, Beatrice Weder di Mauro, and Jeromin Zettelmeyer, eds. (2025). *Paris Report 3: Global Action Without Global Governance: Building coalitions for climate transition and nature restoration*. Paris & London: CEPR Press.

Powell, G. Bingham (2000). *Elections as Instruments of Democracy: Majoritarian and Proportional Visions*. Yale University Press.

Prakash, Aseem (2000). *Greening the Firm: The Politics of Corporate Environmentalism*. 1. publ. Cambridge: Cambridge Univ. Press.

Pretorius, Louwrens (1996). "Relations between state, capital and labour in South Africa: towards corporatism?" *Journal of Theoretical Politics* 8.2, 255–281.

Putnam, Robert D (1988). "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42.3, 427–460.

Rabe, Barry George (2004). *Statehouse and Greenhouse: The Emerging Politics of American Climate Change Policy*. Brookings Institution Press.

— (2018). *Can We Price Carbon?* American and Comparative Environmental Policy. Cambridge, MA: MIT Press.

Raimi, Daniel, Sanya Carley, and David Konisky (2022). "Mapping County-Level Vulnerability to the Energy Transition in US Fossil Fuel Communities." *Scientific Reports* 12.1, 15748.

Raimi, Daniel and Sophie Pesek (2022). *What Is an "Energy Community"?* Tech. rep. Resources for the Future.

Reny, Tyler, Andrew Reeves, and Dino Christenson (2025). "Rising Seas, Rising Concerns: How Climate Change Vulnerability Shapes Opinions Towards Policy." *Environmental Politics* Forthcoming.

Roberts, Cameron et al. (2018). "The Politics of Accelerating Low-Carbon Transitions: Towards a New Research Agenda." *Energy Research & Social Science* 44, 304–311.

Rodrik, Dani (1989). "Promises, Promises: Credible Policy Reform via Signalling." *The Economic Journal* 99.397, 756–772.

— (2004). *Industrial Policy for the Twenty-First Century*. Tech. rep. 4767. Centre for Economic Policy Research.

— (2014). "Green Industrial Policy." *Oxford Review of Economic Policy* 30.3, 469–491.

Ross, Michael, Chad Hazlett, and Paasha Mahdavi (2017). "Global Progress and Backsliding on Gasoline Taxes and Subsidies." *Nature Energy* 2.1, 16201.

Ross, Michael L. (2025). "The New Political Economy of Climate Change." *World Politics* 77.1, 155–194.

Rowan, Sam S. (2022). "Extreme Weather and Climate Policy." *Environmental Politics* 0.0, 1–24.

Rowan, Sam S. (2025). "From Gridlock to Ratchet: Conditional Cooperation on Climate Change." *International Organization* 79.2, 257–280.

Sabel, Charles and David G. Victor (2022). *Fixing the Climate: Strategies for an Uncertain World*. Princeton University Press.

Sandler, Todd (1997). *Global Challenges: An Approach to Environmental, Political, and Economic Problems*. Cambridge University Press.

Schaffer, Lena Maria and Thomas Bernauer (2014). "Explaining Government Choices for Promoting Renewable Energy." *Energy Policy* 68, 15–27.

Schaffer, Lena Maria, Bianca Oehl, and Thomas Bernauer (2022). "Are Policymakers Responsive to Public Demand in Climate Politics?" *Journal of Public Policy* 42.1, 136–164.

Schulze, Kai (2021). "Policy Characteristics, Electoral Cycles, and the Partisan Politics of Climate Change." *Global Environmental Politics* 21.2, 44–72.

Scoones, Ian, Melissa Leach, and Peter Newell, eds. (2015). *The Politics of Green Transformations*. Pathways to Sustainability Series. Abingdon, Oxon New York, NY: Routledge.

Shen, Shiran Victoria (2024). "Can Autocracy Handle Climate Change?" *PS: Political Science & Politics*, 1–6.

Shen, Shiran Victoria, Bruce E. Cain, and Iris Hui (2019). "Public Receptivity in China towards Wind Energy Generators: A Survey Experimental Approach." *Energy Policy* 129, 619–627.

Shipan, Charles R. and William R. Lowry (2001). "Environmental Policy and Party Divergence in Congress." *Political Research Quarterly* 54.2, 245–263.

Silva, Jennifer, Sanya Carley, and David Konisky (2023). ""I Earned the Right to Build the next American Car": How Autoworkers and Communities Confront Electric Vehicles." *Energy Research & Social Science* 99, 103065.

Skocpol, Theda (1985). "Bringing the State Back In: Strategies of Analysis in Current Research." In: *Bringing the State Back In*. Ed. by Peter Evans, Dietrich Rueschemeyer, and Theda Skocpol. Cambridge University Press, 3–38.

Smil, Vaclav (2010). *Energy Transitions: History, Requirements, Prospects*. Praeger.

Sovacool, Benjamin K. et al. (2025). "The Acceleration of Low-Carbon Transitions: Insights, Concepts, Challenges, and New Directions for Research." *Energy Research & Social Science* 121, 103948.

Sprinz, Detlef and Tapani Vaahtoranta (1994). "The Interest-Based Explanation of International Environmental Policy." *International Organization* 48.1, 77–105.

Stokes, Leah C. (2016). "Electoral Backlash against Climate Policy: A Natural Experiment on Retrospective Voting and Local Resistance to Public Policy." *American Journal of Political Science* 60.4, 958–974.

— (2020). *Short Circuiting Policy: Interest Groups and the Battle Over Clean Energy and Climate Policy in the American States*. Oxford University Press.

Stokes, Leah C. and Christopher Warshaw (2017). "Renewable Energy Policy Design and Framing Influence Public Support in the United States." *Nature Energy* 2.8, 17107.

Stone, Randall (2012). *Lending Credibility: The International Monetary Fund and the Post-Communist Transition*. Princeton University Press.

Stutzmann, Sophia (2025). "Asymmetric Backlash against Structural Economic Change: The Electoral Consequences of the Coal Phase-out in Germany." *European Journal of Political Research* Forthcoming.

Tan, Hao, Elizabeth Thurbon, Sung-Young Kim, and John A Mathews (2021). "Overcoming incumbent resistance to the clean energy shift: How local governments act as change agents in coal power station closures in China." *Energy Policy* 149, 112058.

Thelen, Kathleen Ann (2004). *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge University Press.

Tingley, Dustin and Michael Tomz (2022). "The Effects of Naming and Shaming on Public Support for Compliance with International Agreements: An Experimental Analysis of the Paris Agreement." *International Organization* 76, 445–68.

Trachtman, Samuel (2020). "What Drives Climate Policy Adoption in the U.S. States?" *Energy Policy* 138, 111214.

Tsai, Lily L. (2007). *Accountability without Democracy: Solidary Groups and Public Goods Provision in Rural China*. Cambridge University Press.

Tsebelis, George (2002). *Veto Players: How Political Institutions Work*. Princeton University Press and Russel Sage Foundation.

Tvinnereim, Endre and Elisabeth Ivarsflaten (2016). "Fossil Fuels, Employment, and Support for Climate Policies." *Energy Policy* 96, 364–371.

Ulph, Alistair and David Ulph (2013). "Optimal Climate Change Policies when Governments Cannot Commit." *Environmental and Resource Economics* 56.2, 161–176.

Unruh, Gregory C (2000). "Understanding Carbon Lock-In." *Energy Policy* 28.12, 817–830.

Urpelainen, Johannes and Alice Tianbo Zhang (2022). "Electoral Backlash or Positive Reinforcement? Wind Power and Congressional Elections in the United States." *Journal of Politics* 84.3, 1306–1321.

Vallejos-Romero, Arturo, Minerva Cordoves-Sánchez, Pedro Jacobi, and Antonio Aledo (2020). "In transitions we trust? Understanding citizen, business, and public sector opposition to wind energy and hydropower in Chile." *Energy Research & Social Science* 67, 101508.

Victor, David G. (2011). *Global Warming Gridlock: Creating More Effective Strategies for Protecting the Planet*. Cambridge University Press.

Victor, David G. and Thomas C. Heller, eds. (2007). *The Political Economy of Power Sector Reform: The Experiences of Five Major Developing Countries*. Cambridge University Press.

Victor, David G., Marcel Lumkowsky, and Astrid Dannenberg (2022). "Determining the Credibility of Commitments in International Climate Policy." *Nature Climate Change* 12.9, 793–800.

Voeten, Erik (2025a). "Do Domestic Climate Rulings Make Paris Treaty Commitments More Credible? Evidence from Stock Market Returns." *The Journal of Politics* Forthcoming.

— (2025b). "The Energy Transition and Support for the Radical Right: Evidence from the Netherlands." *Comparative Political Studies* 58.2, 394–428.

von Stein, Jana (2022). "Democracy, Autocracy, and Everything in Between: How Domestic Institutions Affect Environmental Protection." *British Journal of Political Science* 52.1, 1–19.

Vreeland, James Raymond (2003). *The IMF and Economic Development*. Cambridge University Press.

Walter, Stefanie (2021). "The Backlash Against Globalization." *Annual Review of Political Science* 24.1, 421–442.

Ward, Hugh and Xun Cao (2012). "Domestic and International Influences on Green Taxation." *Comparative Political Studies* 45.9, 1075–1103.

Ward, Hugh, Xun Cao, and Bumba Mukherjee (2014). "State Capacity and the Environmental Investment Gap in Authoritarian States." *Comparative Political Studies* 47.3, 309–343.

Weeks, Jessica L. (2008). "Autocratic Audience Costs: Regime Type and Signaling Resolve." *International Organization* 62.01.

Williamson, Oliver (1989). "Transaction Cost Economics." *Handbook of Industrial Organization* 1, 135–182.

Xu, Chenggang (2011). "The Fundamental Institutions of China's Reforms and Development." *Journal of Economic Literature* 49.4, 1076–1151.

Yuliani, Dewi (2017). "Is Feed-in-Tariff Policy Effective for Increasing Deployment of Renewable Energy in Indonesia?" In: *The Political Economy of Clean Energy Transitions*. Ed. by Douglas Arent, Channing Arndt, Mackay Miller, Finn Tarp, and Owen Zinaman. Oxford University Press.

Zucker, Noah (2024). "Identity, Industry, and Perceptions of Climate Futures." *Journal of Politics* Forthcoming.