POWER SHIFT

Keywords for a New Politics of Energy

EDITED BY

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AND JENNIFER
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INTRODUCTION

IMRE SZEMAN AND JENNIFER WENZEL

The end of fossil fuels and their ever-increasing greenhouse gas emissions is closer than you might think. Or at least the beginning of the end. By 2030, demand for fossil fuels will peak, and renewables will begin to eclipse fossil fuels in terms of actual use and new investment, creating what the International Energy Agency (IEA) calls a "considerably different global energy system," with more electric vehicles, heat pumps, and other clean-energy-powered technologies than today.[1] In their World Energy Outlook reports of 2022 and 2023, the IEA projected not only that solar photovoltaics would generate more **electricity** by 2030 than was currently produced by the *entire* U.S. grid but also that global CO_2 emissions in the power sector would peak in 2025.[2] Such imminent milestones in the fight against climate change offered surprisingly good news, and their significance was not lost on the authors of the IEA reports. "Global fossil fuel use has risen alongside GDP since the start of the Industrial Revolution in the 18th century," the 2022 report notes; "Putting this rise into reverse while continuing to expand the global economy will be a pivotal moment in energy history."

In contrast to the IEA's good news about energy transition, other assessments have been less optimistic about how far we've come in shifting to renewables and what this progress (or lack thereof) means for the likelihood of containing global temperature rise even to the levels established by the Paris Agreement.[3] Even the World Energy Outlook reports cited earlier emphasize that this recent "phenomenal rise of clean energy technologies" will not achieve climate goals that nation-states have set themselves for 2050. "Today's policy settings," the 2023 report notes, will bring major shifts toward clean energy in the coming years, while also increasing average global temperatures by approximately 2.4°C, which blows past the 1.5°C Paris Agreement target. The impressive progress toward energy transition, the 2022 report warned, will be "far from

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enough to avoid severe impacts from a changing climate." Regarding these future prospects, one might say that any reduction in emissions and any steps toward the emergence of a green energy world would be cause for celebration, were it not for the fact that these achievements will not be enough to avert severe climate disruption. Whether or not the IEA correctly forecasted a "pivotal moment" of peak emissions, the coming decades seem more likely to bring climate failure than climate success. Simply bending the curve of ever-increasing fossil fuel use that began with the **Industrial Revolution** will be insufficient to head off the broader derangements of the past centuries. Indeed, the 2023 World Energy Outlook anticipated that the projected 2025 emissions peak would be followed by a plateau rather than rapid decline. As journalist David Wallace-Wells observed in conversation with **Greta** Thunberg, "Few people understand just how far a peak is away from zero."[4]

Scholars, writers, and scientists concerned about climate change have, for the most part, emphasized the latter version of these narratives—a version that emphasizes failure. The story of **action** against climate change is understood, at best, as one of missed opportunities, particularly in retrospect. Consider, for example, Nathaniel Rich's analysis of efforts that nearly resulted in a global framework to reduce emissions in the 1980s.[5] An earlier start in addressing climate change could have made a big difference: in the twenty-five years between 1990 and 2015—the period between the collapse of the agreement Rich examines and the year of the Paris Agreement—global greenhouse emissions increased by 43 percent.[6] Such missed opportunities for action are just one among many failures with which advocates for climate action have had to contend. Most obviously, there is the failure of many segments of the population, even now, to recognize in any meaningful way the full import of global warming. There are the widespread failures of existing political systems to address (and, in many cases, even *begin* to address) the impact of climate change on human communities and the Earth System as a whole. The continued success of industry at keeping fossil fuels flowing—and at reaping unprecedented profits even in the midst of accelerating climate breakdown—constitutes a failure for those who prefer that all of it be kept in the ground.[7] The seemingly impossible challenge of unnerving, undoing, and redirecting global systems of **resource** and value extraction has generated its own sense of failure. To be sure, many critics, scholars, scientists, and artists alarmed about climate change have sought to push fossil-fueled citizenries and political and social systems in better directions. But the slow-moving sludge of policy initiatives and the glacial pace of decision making about the environment offer disconcerting **evidence** of the failure of facts, arguments, and new ideas to make any real difference. The failure to arrest

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climate change is thus evident all around us. Perhaps the starkest confirmation of this predicament is the failure to have reached *any* of the targets that scientists agree are necessary to avoid the most serious consequences of global warming. Moreover, even the perception of failure can itself create a negative feedback loop, a vicious cycle that deepens and entrenches the tendency toward inaction if such action is perceived to be futile anyway.

Amid such seemingly overwhelming evidence of failures past, present, and future, this introduction to *Power Shift: Keywords for a New Politics of Energy* poses two sets of questions intended to open up alternative ways of understanding the current predicament and to chart possible ways forward. The first set of questions, which we address in the following section, takes seriously the unexpected optimism about energy transition in the IEA projections, in order to ask, *what would happen if, rather than failure, we turned our attention to the remarkable successes of the environmental and climate justice movements?* The second set of questions, addressed in a subsequent section of the introduction, seeks to complicate the very notion of what it would mean for the proverbial glass to be full or empty: *what, exactly, constitutes success or failure with regard to climate action and energy transition?* Taken together, these questions are intended to lay out the need for, and possibilities of, a new politics of energy in the present, which we and our contributors examine in this book. *Power Shift* offers a nuanced and comprehensive map of those emergent politics, drawing together the varied perspectives of over a hundred artists, scholars, and activists, who have contributed brief essays on keywords that are crucial to this politics in the making. Our discussion of failure and success in the following sections aims to explain what we mean by politics and why we understand politics as crucial in forging our future, in order to provide context and motivation for the chapters that follow.

* * *

Turning to the first set of questions, what if, rather than ruminating upon endless and inevitable failure, we focused instead on the myriad achievements of climate action and decarbonization movements? How would our understanding of the challenges of energy transition and climate change be transformed (along with our understanding of *change* itself) if we shaped narratives of climate action around the amazing ecopolitical accomplishments of the past fifty or sixty years—depending on whether one takes E. F. Schumacher's *Small Is Beautiful* or Rachel Carson's *Silent Spring* as a baseline?[8] Without ignoring or minimizing the roadblocks to change still being erected at present, nor the serious hurdles undoubtedly looming ahead, might we gain new critical purpose,

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conceptual insight, and sheer inspiration by recognizing and building upon the prospective energy success of the coming years—rather than lamenting anticipated future failures to reduce emissions by 2030, 2050, and 2100? And might there also be a change in mood, attitude, and outlook—those intangibles so necessary to mobilize political action and to sustain movements for change—that could further energize these positive developments? Failure, after all, provides its Cassandras with the kinds of comfort that come with certainty. Letting go of the comforting surety of inevitable failure might make space for the discomfort, uncertainty, and unsettlement that, we believe, climate politics in the twenty-first century will demand.

The reasons for this proposed shift of perspective have little to do with a naively optimistic desire to look on the bright side of life. There's no question that without profound changes—not only in our environmental practices but also in many of the sociocultural beliefs, desires, hopes, and dreams that now animate the life of human communities—targets for avoiding the worst effects of climate change will not be achieved. The UNEP's 2022 Emissions Gap Report noted that it is impossible to trace a credible path toward the achievement of net-zero targets.[9] But even so, it is important not to gainsay the fact that profound changes are indeed happening. The past decade alone has witnessed remarkable developments, and not merely in the astonishing technological advancements in **renewable** energy generation and storage that promise to make green electricity cheaper than fossil fuels far sooner than anyone expected. Enormous change has also occurred in the realm of public awareness and sociopolitical mobilization. Energy is now frequently a topic of front-page news, and energy transition is an issue about which broad segments of the public have become conversant. Governments around the world have instituted green transition policies, with some even adopting **keep it in the ground** programs to limit or eliminate the production of fossil fuels, rather than focusing solely on limiting consumption (via carbon taxes, for example).[10] Against all odds, even the U.S. Congress passed climate legislation in 2022 that could transform the renewable energy landscape, to the bewildered consternation of European states left worrying about their capacity to compete with U.S. industry in decarbonization.[11] Fossil fuel companies are increasingly being held to account for the greenhouse gases they emit and the oil they spill.[12] So, too, are wealthier, developed countries—those most culpable for accumulated levels of atmospheric CO_2—as evidenced by the initiation of a process at COP27 (an event deemed by many to be a failure) to address the disproportionate impact of climate change on poorer countries. The affirmation by delegates at COP28 of the need to "transition away" from fossil fuels—the first time the root cause of climate

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change has been explicitly named, after nearly three decades of UN climate conferences—is a sure sign of where things now stand on the energy future. (This outcome is all the more encouraging given the worries before COP28 about it being held in a petrostate and led by the head of an oil company.)

And there's more. At a subnational level, various communities, organizations, institutions, and governmental entities have become newly attentive to environmental issues. Religious communities, for example, have called for the end of fossil fuel use.[13] Successful efforts to divest university endowments from investments in fossil fuel companies have led to demands for divestment by other kinds of institutions. The Fossil Fuel Non-Proliferation **Treaty** has gained force and momentum by gathering signatures from national governments, cities, Nobel laureates, civil society organizations, and faith institutions.[14] Protests by **Indigenous** communities against new pipelines and fossil fuel developments—including, most prominently, the Standing Rock Sioux Tribe in South Dakota and Wet'suwet'en Nation in British Columbia—have brought attention to the impact of resource extraction on these communities as well as to the broader colonial histories of injustice and dispossession visited upon them for centuries.[15] Similar protests have taken place across the world, with communities mounting resistance to mega-mining projects, new gas plants, waste-to-energy projects, and specious carbon capture initiatives. Writing in the wake of COP27, Mitchell Beer (editor of *Energy Mix*) notes a range of other developments that point to a much faster shift to renewables than previously imagined, including investor interest in net climate-positive projects, the adoption by farmers of solar energy as a second cash crop, and the implementation of energy efficiency measures and development of large renewable projects in European countries, so that, for example, Germany produced more than half of its energy from renewables in 2023.[16]

Somewhat counterintuitively, the aggregate impact of these developments is also legible in desperate attempts by fossil-fuel interests to delegitimize alternatives to the status quo, by pointing to renewables as the cause of infrastructural failure or energy price spikes. Actually-existing energy transition has become enough of a factor to be invoked as a scapegoat at moments of breakdown or crisis in the fossil energy regime. Consider, for example, how Governor Greg Abbott attempted to blame the historic and deadly failure of the Texas electric grid in February 2021 on frozen **wind** turbines. Or consider the campaign by state Republican lawmakers in the United States to punish companies (including investment firms like BlackRock) for taking climate action.[17] Or consider how Gazprom and the German government colluded in late 2020 to create a fake state-sponsored climate foundation that was supposedly supporting

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offshore wind fields but was actually working to complete the Nord Stream 2 **pipeline** while evading U.S. sanctions on Russia.[18] And progressive petrostates like Canada and Norway are lining up to position themselves as the last, most ethical producers in a "green" near future. What unites these varied examples are the ways that political figures have aligned themselves with the fossil fuel industry against energy transition, but do so by spuriously *invoking* energy transition as either a threat to the status quo or a path to the future, while doubling down on the fossil regime.

In effect, these incumbent interests cling to an earlier, more familiar version of peak oil—not the emissions peak recently heralded by the IEA but instead the mid-twentieth-century peak predicted by American geophysicist M. King Hubbert. This bell-shaped curve of growth and projected decline in petroleum production (dubbed Hubbert's peak) has been repeatedly flattened and extended by the discovery of new reserves and the development of new technologies (such as ultra-deepwater drilling, steam injection, and hydraulic fracturing, or fracking) to exploit previously inaccessible deposits.[19] While it's not surprising that the industry dreams of sustaining some part of the fossil fuel energy regime for as long as possible, their dogged, duplicitous attempts to ensure that the anticipated peak and subsequent decline of fossil fuel use will align with technologically augmented supply, rather than with politically constrained demand, represent a fundamental lack of seriousness about both the existential threats that climate change poses and the industry's culpability in producing these threats. If we understand these tactics as a politics of delay and deferral—pushing the peak further into the future—then we can also recognize that the fossil fuel industry itself acknowledges that energy transition is inevitable. Their public stance is not so much "fossil fuels forever" as "now's not the time; not yet," with every new crisis (coronavirus, Ukraine, Gaza) offering a new reason for putting off the necessary transition. Although the private communications of industry executives may damningly reveal otherwise,[20] their public messaging has created a widespread impression that their heralded future, toward which "clean-burning" **natural gas** is supposed to offer a much-vaunted "bridge," will be a future *not* powered by fossil fuels.

Despite concerted pushback by the fossil fuel industry, these multiple developments in the politics of energy mean that the mid-twenty-first century will look remarkably different than either the mid-twentieth century or its imagined futures, and different even from the beginning of this century. The simple fact of having established climate change as an issue with which the world must contend, and must continue to do so indefinitely, constitutes a remarkable political achievement. Even David Wallace-Wells, a wonted doomsayer who

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made his name in climate discourse with *The Uninhabitable Earth* (2019), has recently observed that plausible climate futures have veered away from apocalypse, "pull[ing] the future out of the realm of myth and return[ing] it to the plane of history."[21] This shift, Wallace-Wells insists, is because of human actions taken so far, and these futures remain to be written by human actions taken now. This is another way of saying that politics matters, profoundly.

Indeed, letting go of the inevitability of failure brings along with it the imperative of taking up responsibility, which, as Darin Barney (a contributor to this volume) has argued, demands a new kind of "post-masculinist courage: the courage to face the uncertainty of that which we cannot control; the courage to take up the uncomfortable burdens of judgment and action; the courage to be let go into action that begins something truly new and unpredictable; the courage to become political."[22] The new politics of energy that we consider in this book comes precisely out of this uncertainty, emergent from a moment of radical openness in which the need for action seems (newly) urgent, but the terms of struggle are not given. If, as we have argued, the certainty of failure offers a comforting yet unhelpful sense of surety, so too would the certainty of success, as, for example, promised by techno-utopian assurances that as-yet undeveloped technologies will come along to fix the fix that earlier technologies have put us in.[23]

To be "encouraged" in Barney's sense requires a reckoning with the formidable forces of discouragement at work in the present. Among these are the facts that capitalism hasn't ended, that climate denialist and fossil-fuel-loving populist governments continue to sprout around the world, and that narratives about the necessity of economic growth and technological progress at all costs remain compelling to many. Even as it celebrates the anticipated decline of emissions, the IEA continues to blithely imagine that what is most remarkable in its forecasts is the continued expansion of the global **economy** in a world after fossil fuels. And yet discussions about energy transition have moved from *if* to *when* these transformations will take place. Moreover, talk of energy transition very often acknowledges the need for broader changes to existing systems of patriarchy, property, power, and privilege that were, in direct and indirect ways, made possible by fossil fuels.[24] From this indispensable perspective, energy transition is about much more than finding new fuels and retrofitting present systems to run on them; it demands profound transformations of society writ large. It's why technocratic approaches to energy transition are being challenged by demands for energy justice and just **transitions**, and not only by critics and activists, but by governments, intergovernmental agencies, and even industry.[25] Indeed, the very rapidity with which activists' language of climate

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and energy **justice** has been adopted by institutions might raise new questions about whether they all mean the same thing by *just*.

This book offers an account of how these recent positive developments might provide a platform from which to spur the work of envisioning and making futures in which the upward race of global temperatures slows to a crawl or comes to a decisive halt. *Power Shift: Keywords for a New Politics of Energy* aims to capture the newfound sense of possibility emerging from the multiple challenges to the energy status quo described here. The book features essays on key terms, arranged alphabetically, that together offer a vocabulary for understanding—and forging—the politics of energy in the present. While deeply engaged with questions of political economy, policy, **science**, and technology, *Power Shift* features contributions from a diverse range of academics, activists, and artists whose disciplinary perspectives are grounded in the arts, humanities, and humanistic social sciences. The book extends recent energy humanities scholarship that draws connections between new energy sources and new modes of social relation and cultural imagining. What do we want the post-fossil era to look and feel like, and how might we get there? Our contributors answer these questions by tracing an emergent post-carbon consensus and the role of publics, communities, and individuals in shaping our energy future, while remaining attentive to the all-too-real challenges mounted by industry and government. *Power Shift* is addressed broadly, not only to scholars and specialists but also to students and citizen-readers concerned about how energy and climate will shape the world we'll inhabit in the coming years.

Power Shift is a sequel to our previous book, *Fueling Culture: 101 Words for Energy and Environment*, where we assembled a similarly diverse group of contributors to examine the myriad, complex relationships between culture and energy by writing on keywords ranging from *aboriginal* to *whaling*, *wood*, and *work*. [26] With both books, our aim was not to create an energy dictionary or encyclopedia that would summarize established definitions or narrate simplified histories. Rather, we asked our contributors to propose a new lexicon, in order to stretch existing concepts and open up new ways of thinking. In this, we take inspiration from Raymond Williams's seminal book, *Keywords: A Vocabulary of Culture and Society,* where he distinguishes between a dictionary—neutral, static, and book-bound—and "an active vocabulary," which is dynamic and continually shaped by its users.[27] Like Williams, we understand the vocabulary proposed here to be social, historical, and political, and we share his interest in interconnections among keywords.[28] As with *Fueling Culture*, we intend *Power Shift* to offer what Williams calls "a vocabulary to use, to find our own ways in, to change as we find it necessary to change it, as we go on making our own language and

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history."[29] Both projects are handbooks of provocations that readers can use to navigate to and through the places where energy and culture (writ large) come together. But if the focus of *Fueling Culture* was on how to think about (and with) energy, our central question in *Power Shift* is more pointed: what can we *do* about energy, now?

While there is an emerging consensus that an energy transition is necessary and inevitable, what is less certain in the public imagination is *how* transition should actually happen, and what a future after oil will look like. How do we decide upon the world that will come after what Stephanie LeMenager (a contributor to this volume) has called "Tough Oil World"?[30] Who is involved in bringing this new world into being, and what forces are pushing back? These are questions of politics. *Power Shift* examines the politics of energy in the present moment—with both *politics* and *energy* construed broadly, and with an eye toward practical and political transformation as elements of an energy transition that moves toward climate and energy justice. Our contributors speak to the ongoing struggles of publics, communities, and individuals to inform, engage with, and act against decisions made about energy and the environment by companies, governments, nongovernmental actors, and international organizations.

Taken as a whole, this collection outlines the current state of energy and environmental action around the world today, in order to identify gaps in current knowledge and strategy regarding what kinds of action are possible in the present, point toward possible new directions, and find practical ways to anticipate and defuse the myriad obstacles to change. With the help of the lexicon offered here, we hope to further energize emerging conversations and movements for energy and environmental change, wherever they exist and whatever critical and political form they take. The book's title, *Power Shift*, speaks to our sense of the profound changes in the politics of energy detailed in this introduction; these changes have put the status quo on its back foot and generated hope even in face of the overlapping, cascading crises of the present. The title is also intended as a wry rebuke to the vision of the future offered in Alvin Toffler's infamous *Powershift* (1990), where environmentalism is repeatedly named as a problem or threat—unhinged, fundamentalist, and too radical—and energy transition not mentioned at all.[31] In all of his speculations, Toffler could grasp neither how impactful and mainstream the environmental movement would become, nor that fossil fuels were on their way to becoming a thing of the past instead of the fuel of the future.

We know that energy transition is inevitable: the hegemony of fossil fuels—with that status accrued as much by their impact on social life as by their longtime dominance among competing power sources—is at an end (even the IEA

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thinks so!). The questions that remain radically open are the forms that this transition will take, whether it will succeed in mitigating emissions or fail to do so, and what other social transformations—intentional or otherwise—it will entail. These are questions raised by the contributors to *Power Shift*. Who, for example, will own and manage renewable energy systems? Who will benefit, and who has to endure the consequences of new forms of resource extraction or **waste**? Put most broadly, how will new modes of generating power for industry and everyday life intersect with dominant or emergent workings of sociopolitical power? Clean energy populisms and solar liberal capitalisms might well make the putative successes of energy transition feel like the environmental failures with which we are all too familiar.

* * *

Success versus failure? *Positive versus negative*? *Yes versus no*? We recognize that such simple oppositions might read as conceptually and politically specious. There are good reasons, after all, for the despair felt by some climate activists, for the nihilism of some climate theorists, and for the apocalyptic dystopias imagined in much climate fiction. The problems we face are too big. The speed at which action must happen is too fast. We just don't have enough time. The greenhouse gases that have already accumulated in the atmosphere and oceans are, in effect, there for good, and will continue to increase long after emissions peak. To really work, action on climate change needs to be global, but there are no political entities with sovereignty over the **planet** and no prospect of such a political body on the horizon. While the United Nations—the only significant climate actor one might describe as global—can help muster agreements by which nations might measure their climate progress, it has no real power to enforce them. This limitation applies to the recent major COP breakthroughs, including the agreement on the need to "transition away" from fossil fuels and the major emitters' contributions to a loss and damage fund for poor nations.

Frustration at the lack of significant climate action and at the limitations and impasses of existing political and economic systems has led to radical proposals to overturn the apple cart of capitalist modernity. Some scholars call for **degrowth** and rewilding the planet;[32] others argue that only "war communism" can impose the rapid, extreme political changes necessitated by the climate crisis, or that eco-terrorism is necessary to eliminate the material and political infrastructures that enable fossil-fueled life.[33] Most left-wing writing about climate calls for the end of capitalism in addition to a transition away from fossil fuels—or suggests that the former is a precondition of the latter. In comparison with these radical programs, our proposal to foreground the

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accomplishments of the climate movement and the steps already taken toward energy transition might seem meek and accommodationist. At best, the idea of emphasizing success can't help but seem to affirm a standard, liberal position that is apparently content for climate action to emerge out of long-standing forms of interchange among business, government, and civil society. On the whole, these modes of thinking seem to add up to little more than the same old politics of energy.

We began this introduction with a first set of questions about what would happen if we were to flip our approach to climate politics by emphasizing possibilities rather than limits, successes rather than failures. But this flip can itself come across as a kind of failure, taking us back toward energy business as usual. Part of the problem is the very inadequacy of these terms, *success* and *failure*, for assessing the present circumstance, as we explain in this section of the introduction by considering a second set of questions. Can we even think in terms of success or failure with regard to climate action and energy transition? How do demands for climate and energy justice complicate the kinds of goals and targets that would count as success? And how does the current planetary predicament put pressure on what we mean by *politics*? Here too we follow Raymond Williams's example in recognizing how "the problems of [a word's] meaning [are often] inextricably bound up with the problems it was being used to discuss."[34] Williams advocated a relationship toward language that was "at once conscious and critical"; in the face of sociopolitical contestation, he acknowledged, this approach could admittedly yield "not resolution but perhaps . . . just that extra edge of consciousness."[35] This edgy, reflexive stance is, we believe, one of the most indispensable modes of humanistic thought: a critical examination of the given, including received terminologies and frameworks of analysis. It characterizes not only the essays in *Power Shift* but also this introduction, in which we advance arguments about success and failure while also subjecting those terms to critical reflection.

In the context of climate action, failure and success can be difficult to discern. At the planetary **scale**, the fundamental target and measure of success has been established as the achievement of global net-zero emissions, ideally in a way that attends to the political and ethical implications of vast differences in historical energy use and greenhouse gas emissions in different parts of the globe. The year 2050 is taken to be the finish line toward which we are all racing. Between now and then, nation-states (and millions of corporations and other institutions) will have to traverse a lot of ground in a big hurry: the challenge is something like running a marathon while sustaining the pace of a hundred-meter sprint. In the dominant social imaginary, the mid-twenty-first century

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is often assumed to be the moment when problems with the climate are finally fixed and the deleterious effects of greenhouse gas emissions put to rest. The **net-zero** target is sometimes understood as something like a zero-sum game: to reach it is to win against climate change. The more intractable implications of accumulated atmospheric emissions and their persistent effects on the Earth System have only recently begun to be discussed more widely in the popular media. While the 2050 finish line remains important to reach, many observers are beginning to understand that crossing it—if we manage to do so—won't constitute the victory we might have hoped for. In the big scheme of things, what might look like climate success could actually obscure and even entrench climate failure.

Indeed, even beyond the persistent effects of accumulated emissions that will persist long into the future, net zero is a highly imperfect measure of success. One might instead envision the finish line as a return to preindustrial levels of greenhouse gas emissions or to the "safe" level of 350 parts per million (ppm) of atmospheric CO_2. Or the return of the planet to pre-anthropogenic populations of **animals**, particularly insects and birds. Or the elimination of any or all of the many causes behind the symptom known as climate change—most obviously, capitalism and colonialisms of various kinds. After all, the vast majority of the planet's inhabitants need *more* access to energy, not less: a foreboding imperative in the face of the desperate need to reduce planetary levels of CO_2. Counterhistories like these (with their attendant alternative futures, some impossible, some utopian) play a crucial role in identifying the depth and complexities of the overlapping challenges of the present circumstance. They also provide a powerful rationale for contemporary climate politics and constitute an ethical reproach to all those apparently comfortable with the current state of the planet. If 350 ppm is the limit of safety, then those who continue to add CO_2 to an atmosphere with 426 ppm (as of July 2024) are making decisions and taking actions that must be forcefully challenged.

The language of failure or success, it seems to us, has become constitutive of climate politics. The limits and confusions of this language are, at core, consequences of how it frames what counts as climate politics, which includes a commitment to failure as the ultimate guarantor of criticism and discounts anything resembling success as always already too little, inadequate, or a ruse. Given this predicament, our first step in a new climate politics may well be to reimagine what we mean by *politics* itself. There is, we think, something distinctive and emergent about the politics of energy at the present moment. In an earlier era, one might have traced energy politics primarily in terms of

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geopolitical contests between Cold War superpowers or other hegemons over the control of energy, particularly oil reserves located in volatile client states in the Global South. A further, secondary gesture in this kind of analysis would consider how these geopolitical rivalries played out in various national contexts, attending to their deformation of political structures and the consequences for citizens of oil states.[36] To be sure, this kind of analytic reemerged with the Russian invasion of Ukraine; new alliances and divides formed around the question of who would buy the Russian oil and natural gas widely understood to sustain the Putin regime and to fuel its expansionist war efforts.[37]

Even with the conflict in Ukraine and the consequent fuel crunch that challenged consumers and governments around the globe, this analytic inherited from the twentieth century seems inadequate to explain the present for several reasons, some of which have to do with major shifts in our understanding of *geopolitics* itself. In suggesting that *geopolitics* is taking on new meanings, we refer not only to the shifting strategic polarities of a post–Cold War world but also to the emergence of a multiscalar *politics of the earth (and the atmosphere and oceans)*, rather than the old geopolitical rivalries whose terrain was arguably less the earth or the planet than the globe.[38] European colonialism and Cold War brinksmanship were certainly premised upon control over the extraction of innumerable material substances, but the perceived effects of those contests upon the planet itself tended to be framed merely in terms of the apocalyptic future prospect of mutually assured nuclear destruction.

By contrast, the earthly environmental politics of the twenty-first century involves the emergence of and **solidarity** among localized social movements at sites of extraction and production as well as broader movements for climate justice that would demand a transition away from fossil fuels. The new politics of energy in the present certainly includes, but is not limited to, forces that are either aligned with or opposed to the imperative of energy transition as well as the modes of power and forms of authority that will shape the terms of that transition. Whereas one can read mid-twentieth-century politics at a global scale as having been framed as and organized around a bipolar choice between two superpowers, one might read the fundamental dilemma of the present in increasingly stark terms: as a choice between life and capital. Of course, one could counter that the spectacular hot and cold wars organized around bipolar superpower conflict in the mid- to late twentieth century also boiled down to a not-dissimilar dilemma. But in this emerging planetary politics, nature and Earth itself are explicitly becoming a new *kind* of pole, around which ties of alignment, affiliation, identification, solidarity, and survival are being forged.

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Cold War geopolitics saw the emergence of conflicts among the First, Second, Third, and Fourth Worlds; geopolitics in this century will have to reckon with the planet.

This new politics of the Earth is inherently messy. It's messy not merely because it must reckon with multiple, vast forms of agency not easily accommodated within political forms envisioned around human individuals or relatively small human collectivities. Additionally, the temporality of this politics confounds conventional understandings of how change is made, a predicament with profound implications for the meaning of failure or success. Though often described as such, the politics of energy and climate is not necessarily the politics of an interregnum, an in-between moment that promises the emergence of new forms of socioeconomic and political organization as old forms pass away. To be sure, there will be a transition to a world in which renewable energies are used more widely and intensively than they are today and in which fossil fuel use will come to an end. There likely will not be a moment, however, when climate change as we currently understand it is resolved or fixed or transmuted into some other form.

Within the timescales of politics as conventionally understood, this struggle over the future history of Earth will continue indefinitely, and that fact must bear upon how we understand the present. Perhaps the messy ongoingness of this challenge is unhelpfully obscured by the metaphor of the finish line at the end of the marathon sprint. (Put another way, the *finish line* metaphor is simply one version of an ur-narrative of progress that understands historical change as linear and unidirectional, aiming ever upward.) This ever-receding horizon of success is the corollary to Wallace-Wells's argument that technological and sociopolitical changes have recently returned the climate crisis from the suprahuman realm of apocalypse to the temporal realm of human action and politics. From now on, the task of *not* destroying the biophysical conditions that have supported human life will involve a permanent struggle and ongoing deliberation among possible presents and futures.

This new politics of the Earth, we insist, is multiscalar, involving billions of human individuals in varied relationships to the more-than-human and the planetary. *Power Shift* aims to understand the new forms that old geopolitical rivalries are taking in the present, the new gestures toward multilateral governance that aim to address shared challenges at a planetary scale, as well as a new emphasis on the region, on the extraction site, and on the varied sites of politics that now constitute daily life.[39] There's no question that what still stands in the way of transition are the entrenched financial and political interests of petrostates and fossil energy companies. But change is also limited by the

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embodied, everyday attachments of ordinary people to the worlds that fossil fuels have made, and which in turn have made them, from their bodily affects to their sense of achievement and success in life. Where, then, does one find a new politics of energy in the making? The multilateral treaty negotiating table, the corporate boardroom, the path of a proposed pipeline, the voting booth, the classroom, the soccer field, the wetland or forest, and the kitchen table—in our view, these are all important sites of politics, and there are many more types of sites that demand the attention of anyone wanting to understand the possibilities for making change in the present. This capacious understanding of politics has shaped the terms we chose to include in our vocabulary, which includes some words that readers would likely expect to find in a collection of this sort (**blockade**, **Green New Deal**) and others that they probably wouldn't (**animals**, **sport**). In the introduction to *Living Oil: Petroleum in the American Century,* Stephanie LeMenager exhorts, "The global movements of these fossil fuels and their imbrication in all aspects of social and economic endeavor, let alone the personal nature of their effects in our bodies, demand the collaborative efforts of academics, artists, scientists, industry, and everyone—which means *everyone*—living in Tough Oil World."[40]

This inclusive gesture of building **community** and gathering publics inspires our work in *Power Shift*. We invite you, as part of this *everyone*, to recognize your own varied imbrications within the politics of energy, and to think with our contributors about sites and **scales** of politics that lie within your everyday experience, as well as beyond it.

* * *

The "extra edge of consciousness" that we value in Williams's work has implications for our own critical practice. The question of what constitutes success or failure with regard to energy and climate action poses a particular challenge for writers and thinkers not directly involved in scientific discovery, technological development, or public policy, for whom the direct link between their efforts and the putative finish line of net zero can be difficult to trace. The sense of commitment and desire to *do something* that justifiably provokes critics to confront urgent questions of energy and environment in their writing are difficult to calculate in terms of their measurable effects in the world. What would it mean, for example, for *Power Shift* to *succeed*, or to have *accomplished something*?

There are some additional comforting certainties worth naming here, whose seemingly opposed tendencies might actually point in the same direction. The first tendency can be understood (at least tacitly) as a certainty of success, in which literary and cultural critics overestimate the effects of their work in the

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world, in a kind of category mistake. In a recent essay, the two of us trace this predicament with regard to the overstated ways that extractivism has been taken up as a topic in recent scholarship and public discourse, where critics seem to assume that they're doing something against material practices of extraction by finding metaphorical analogues of it everywhere.[41]

The second tendency amounts to a not-so-tacit certainty (or perhaps necessity or valorization) of failure, by which we mean that critical seriousness tends to be equated with negativity. Narratives of success are, from this vantage, necessarily suspect. Rather than deconstructing an argument or idea—taking it apart to see what it's made of, what it does, for whom, how, and why—the critical task is to dismantle and destroy. (The latter mode is often what beginning graduate students assume that graduate school is *for*.) The work of criticism is made simple when one knows from the outset that one will find the present to be empty—lacking either the planetary richness of the bygone past (to be lamented, or invoked as something that must be restored) or the promise of a future on the other side of a crisis that is deemed inevitable (for example, capitalism can't help but falter because there is nowhere left for it to generate profit from capital invested).

The fundamental role of criticism is to reveal the fictions of the given: to refuse the seeming inevitability, naturalness, and unchangeability of the status quo. What joins these particular comforting certainties of success and failure is our sense that some modes of actually existing critical thinking—as well as some of the ways that criticism articulates (explicitly or implicitly) the legitimacy of what, why, and how it does its work—can themselves begin to skew toward the conventional, the always-already expected, and the status quo. In thinking through political questions, or in understanding the putatively matter of fact *as* political, the various traditions and modes of critical analysis at work these days don't necessarily foster nuance, contradiction, and ambivalence, let alone recognition of progress or success. The interpretive equivalent of fine motor skills, analytic subtlety, is often absent. The reflections on success and failure in this introduction seek to provoke a metacritical reflection on the counterintuitive comforts of climate criticism. They are also a demand for critical nuance and for close attention to an energy politics that is not foreclosed and impossible. They are a plea for the kind of courage that Barney describes, born out of uncertainty.

The reflective and critical dispositions associated with the humanities can feel sharply at odds with the technocratic race for solutions in the face of climate collapse, and this contradiction is only deepening. One unlikely similarity between CO_2 and critical work is that their effects are fundamentally accretive:

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building up over time, often nonlinearly. The environmental and energy humanities have grown exponentially over the past two decades, at the same time that the ongoing accumulation of CO_2 increasingly poses a challenge for thinkers trained to emphasize the importance of careful, patient critical reflection over the urgency of unconsidered action. Raising fundamental questions about the histories, interests, and values that underwrite the wicked problems of the present may become even more of a hard sell than it already is—even to the humanities scholars asking the questions. Who wouldn't prefer, at least at first glance, a quick solution? What is the role of such critical questioning in the present (and future) circumstance of an already-warming world?

The threat of climate change induces us to think about immediate action. But the blending of scientific knowledge with immediacy has proven to be a poor way of mobilizing change; it has served instead to mark what hasn't been done, what won't be done, and what can't be done. What this predicament means is that we need to set aside the comforts of failure in order to shoulder the work of what needs to be done. We now have myriad examples of what can be done, of what works. To foreground these successes is not to quit the race or give up the fight, nor to abandon demands for radical change in favor of the concessionary approaches named by climate mitigation or adaptation. It is, rather, to reframe how we imagine our critical work and to allow ourselves to be energized by what has been accomplished and by the promise of accomplishments yet to come. It's also to confront the contradictions among the multiple scales, multifarious actors, and very short windows and very long horizons of struggles present and future, for the future.

"For a while now I've been getting used to imagining the future without flinching," says the narrator of Italo Calvino's "The Petrol Pump," a short story written amid the oil shock of the early 1970s. Running on empty, then filling his tank with gasoline whose price has quadrupled almost overnight, the narrator imagines backward in time to the prehistoric fossilization of ancient creatures into modern fuels, and forward in time to an apocalyptic moment of "the ultimate cataclysm, the simultaneous drying up perhaps of oilwells pipelines tanks pumps carburettors oil sumps," "as if all engines everywhere had ceased their firing and the wheeling life of the human race had stopped." Whereas Calvino's narrator associates the end of oil with the end of the world, we who inhabit the energy crises of the twenty-first century are tasked with facing a formidable future in which it is not scarcity but instead the ongoing surplus of fossil fuels that threatens the world and Earth as we have known them. Facing this future, many activists have cried out against and worked to undo a lack of action. Scholars in energy humanities have observed and attempted to remedy

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the absence or disregard of energy in our narratives. Like LeMenager, we believe that living in Tough Oil World and building the world to come demands the work of *everyone*. We also believe that that work entails not only insisting that things must be done but also recognizing and building upon what has, in fact, been done. This vocabulary offers a partial inventory of the struggles and obstacles so far and an archive of critical knowledge and experience intended to help answer the question, what comes next?

Notes

1 International Energy Agency, "World Outlook Report" (2023), https://www.iea.org/reports/world-energy-outlook-2023.
2 International Energy Agency, "World Outlook Report" (2022), https://www.iea.org/reports/world-energy-outlook-2022.
3 See, for example, the alarming projections in a 2022 report by the United Nations Environment Programme (UNEP), which insists that current levels of greenhouse gas (GHG) reductions are inadequate to achieve the goals set for 2050. UNFCCC Secretariat, "Nationally Determined Contributions under the Paris Agreement: Synthesis Report by the Secretariat" (October 26, 2022), https://unfccc.int/documents/619180.
4 David Wallace-Wells, "Greta Thunberg: 'The World Is Getting Grimmer by the Day,'" *New York Times*, February 8, 2023, https://www.nytimes.com/2023/02/08/opinion/greta-thunberg-climate-change.html.
5 Nathaniel Rich, *Losing Earth: A Recent History* (New York: Picador, 2020).
6 U.S. Environmental Protection Agency, "Climate Change Indicators: Global Greenhouse Gas Emissions" (July 23, 2024), https://www.epa.gov/climate-indicators/climate-change-indicators-global-greenhouse-gas-emissions.
7 UNEP, "2021 Production Gap Report" (2021), https://www.unep.org/news-and-stories/press-release/governments-fossil-fuel-production-plans-dangerously-out-sync-paris. UNEP estimates that global fossil fuel production will continue to increase until 2040.
8 See E. F. Schumacher, *Small Is Beautiful: Economics as if People Mattered* (1973; repr., New York: Harper, 2010) and Rachel Carson's *Silent Spring* (1962; repr., Boston: Mariner Books, 2022 [1962]).
9 UNEP, "Emissions Gap Report" (2022), https://www.unep.org/resources/emissions-gap-report-2022.
10 The Beyond Oil and Gas Alliance is composed of countries that have made the decision to forgo fossil fuel production. See https://beyondoilandgasalliance.com.
11 For an overview of the Inflation Reduction Act (IRA) from the perspective of advocates for climate change, see Ciaran Clayton, "A 'New Day for Climate Action in the United States' as U.S. Congress Passes Historic Clean Energy and Climate Investments" (Nature Conservancy, August 11, 2022), https://www.nature.org/en-us/newsroom/us-house-passes-landmark-climate-bill/. See also Paul Krugman, "Did Democrats Just Save Civilization?," *New York Times*, August 8, 2022, https://www.nytimes.com/2022/08/08/opinion/climate-inflation-bill.html. Critics of the bill have argued either that it does too much, i.e., that it's too expensive and will do little to address inflation, or that it does too little and in the wrong way. Matt Huber has pointed to a number of deficiencies in the act, including huge concessions to the

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fossil fuel industry and a tax-credit program that will largely benefit middle-class homeowners looking to electrify their lives. See Huber, "Mish-Mash Ecologism," *New Left Review Sidecar*, August 18, 2022, https://newleftreview.org/sidecar/posts/mish-mash-ecologism.

12 For some examples, see Valerie Volcovici, "Minnesota Sues Exxon, Koch and API for Being 'Deceptive' on Climate Change," Reuters, June 24, 2020, https://www.reuters.com/article/us-usa-climatechange-oil-idUSKBN23V2XY; and Roger Harrabin, "Shell: Netherlands Court Orders Oil Giant to Cut Emissions," *BBC News,* May 26, 2021, https://www.bbc.com/news/world-europe-57257982. Much remains to be done to hold industry culpable for their emissions and oil spills, which have impacted soil and water around the world.

13 Pope Francis has repeated the call he first put out in *Laudato Si'* (2015) for religious communities to attend to the environment and climate change more actively. See Associated Press, "Pope Calls for Courage in Halting Use of Fossil Fuels to Protect Planet," *Guardian*, September 24, 2022, https://www.theguardian.com/world/2022/sep/24/pope-calls-for-courage-in-halting-use-of-fossil-fuels-to-protect-planet?CMP=Share_iOSApp_Other.

14 See Fossil Fuel Non-Proliferation Treaty Initiative, "Fossil Fuel Non-Proliferation Treaty" (n.d.), https://fossilfueltreaty.org. As of December 14, 2022, the treaty has been signed by (for example) 72 cities and subnational governments, 200 health organizations (including the WHO), and faith institutions representing 1.5 billion people.

15 There are a growing number of studies of Indigenous protests against extractive industries. Examples include Kai Bosworth, *Pipeline Populism: Grassroots Environmentalism in the Twenty-First Century* (Minneapolis: University of Minnesota Press, 2022); Nick Estes, *Our History Is the Future: Standing Rock versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance* (New York: Verso, 2019); and Winona LaDuke, *To Be a Water Protector: The Rise of the Wiindigoo Slayers* (Halifax: Fernwood, 2020). The StandingRockSyllabus is an excellent resource for additional texts on resistance and resilience against predatory extraction. See NYC Stands with Standing Rock Collective, "#StandingRockSyllabus" (2016), https://nycstandswithstandingrock.wordpress.com/standingrocksyllabus/.

16 Mitchell Beer, "Don't Let Wreckage of COP27 Distract from Climate Wins," *Energy Mix Weekender*, November 27, 2022, https://energymixweekender.substack.com/p/dont-let-wreckage-of-cop-27-distract. In 2022, renewables became the European Union's top energy source, exceeding nuclear and fossil fuels as a percentage of the whole. See Daisy Dunne, "Wind and Solar Were EU's Top Electricity Source in 2022 for the First Time Ever," *Carbon Brief*, January 31, 2023, https://www.carbonbrief.org/wind-and-solar-were-eus-top-electricity-source-in-2022-for-first-time-ever/. On Germany, see Reuters, "Renewable Energy's Share on German Power Grids Reached 55% in 2023, Regulator Says," *Globe and Mail*, January 3, 2024, https://www.theglobeandmail.com/business/industry-news/energy-and-resources/article-renewable-energys-share-on-german-power-grids-reached-55-in-2023/.

17 Both the scapegoating of wind for the Texas grid failure and legislation against corporate climate action in several U.S. states are the brainchild of the Texas Public Policy Foundation. See David Gelles, "The Texas Group Waging a National Crusade Against Climate Action," *New York Times*, December 4, 2022, https://www.nytimes.com/2022/12/04/climate/texas-public-policy-foundation-climate-change.html.

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19 As fossil fuels are a nonrenewable resource, Hubbert's peak marked the moment at which global oil production would reach its maximum level, before declining and moving toward zero.
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22 Darin Barney, "Eat Your Vegetables: Courage and the Possibility of Politics," *Theory & Event* 14, no. 2 (2011): n.p.
23 Imre Szeman, "System Failure: Oil, Futurity, and the Anticipation of Disaster," *South Atlantic Quarterly* 106, no. 4 (2007): 805–23.
24 On patriarchy and oil, see Cara Daggett, "Petro-masculinity: Fossil Fuels and Authoritarian Desire," *Millennium: Journal of International Studies* 47, no. 1 (2018): 25–44. See also Andreas Malm and the Zetkin Collective, *White Skin, Black Fuel: On the Danger of Fossil Fascism* (New York: Verso, 2021), which offers a critical overview of ongoing developments in fossil capitalism and political power.
25 Unlikely advocates for just transition include the World Bank (see World Bank, "Just Transition for All: The World Bank Group's Support to Countries Transitioning Away from Coal" [2024], https://www.worldbank.org/en/topic/extractiveindustries/justtransition), the Government of Canada (see Natural Resources Canada, "Public Consultations and Engagements" [May 21, 2024], https://www.rncanengagenrcan.ca/en/collections/just-transition), and the Brookings Institution (see Michaël Aklin and Johannes Urpelainen, "Enable a Just Transition for American Fossil Fuel Workers through Federal Action" [Brookings Institution, August 2, 2022], https://www.brookings.edu/research/enable-a-just-transition-for-american-fossil-fuel-workers-through-federal-action/).
26 Imre Szeman, Jennifer Wenzel, and Patricia Yaeger, eds., *Fueling Culture: 101 Words for Energy and Environment* (New York: Fordham University Press, 2017).
27 Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (Oxford: Oxford University Press, 2015), xxvii.
28 Admittedly, most of our contributors are not as interested as Williams in tracing shifts in a word's meaning across the centuries, nor in considering close cognates or synonyms, but they often do emphasize, as he does, social contestation over a keyword.
29 Williams, xxxv–xxxvi. In his introduction, Williams emphasizes this open-endedness by noting that his publisher has included some blank pages at the end of the book "as a sign that the inquiry remains open" in the ongoing "shaping and reshaping" of "our common language" (xxxvii, xxxv). While we have never actually seen an edition of *Keywords* that included such blank pages, we offer *Power Shift* in the same spirit of ongoing, active *use* of a language to imagine and create a new history of energy.
30 Stephanie LeMenager, *Living Oil: Petroleum in the American Century* (Oxford: Oxford University Press, 2014), 18.
31 Alvin Toffler, *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21st Century* (New York: Bantam Books, 1990).
32 See Giacomo D'Alisa, Federico Demaria, and Giorgos Kallis, eds., *Degrowth: A Vocabulary of a New Era* (London: Routledge, 2014); Kohei Saito, *Marx in the Anthropocene: Towards the Idea of Degrowth* (Cambridge: Cambridge University Press, 2023); Matthias Schmelzer, Andrea Vetter, and Aaron Vansintjan, *The Future Is Degrowth: A Guide to a World Beyond Capitalism* (New York: Verso, 2022); Troy Vettese and Drew Pendergrass,

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Half-Earth Socialism: A Plan to Save the Future from Extinction, Climate Change and Pandemics (New York: Verso, 2022).

33 Andrea Malm, *Corona, Climate, Chronic Emergency: War Communism in the Twenty-First Century* (New York: Verso, 2020); and Malm, *How to Blow Up a Pipeline* (New York: Verso, 2021).

34 Williams, *Keywords*, xxvii.

35 Williams, xxxv.

36 For perspectives on the refiguration of geopolitics at the end of oil, see Aymeric Bricout, Raphaeul Slade, Iain Staffell, and Krista Halttunen, "From the Geopolitics of Oil and Gas to the Geopolitics of Energy Transition: Is There a Role of European Supermajors?," *Energy Research & Social Science* 88 (2022): 1–8; Indra Overland, "The Geopolitics of Renewable Energy: Debunking Four Emerging Myths," *Energy Research & Social Science* 49 (2019): 36–40; and Daniel Yergin, *The New Map: Energy, Climate, and the Clash of Nations* (New York: Penguin, 2021).

37 Helen Thompson, "Europe's Unsolved Energy Puzzle: How the Quest for Resources Has Shaped the Continent," *Foreign Affairs*, September 27, 2022, https://www.foreignaffairs.com/europe/europe-unsolved-energy-puzzle; and Jessica Lovering and Håvard Halland, "Russia's Nuclear Power Hegemony: The West Is Dependent on Moscow for More Than Just Gas and Oil," *Foreign Affairs*, June 8, 2022, https://www.foreignaffairs.com/articles/russian-federation/2022-06-08/russias-nuclear-power-hegemony.

38 For expanded discussions of this distinction, see Jennifer Wenzel, "Planet vs. Globe," *English Language Notes* 51, no. 1 (2014): 19–30; and Wenzel, *The Disposition of Nature: Environmental Crisis and World Literature* (New York: Fordham University Press, 2019).

39 On region, see Darin Barney, "Energysheds," *Energy Humanities*, December 8, 2022, https://www.energyhumanities.ca/news/energysheds; and Imre Szeman, "On the Politics of Region," in *Dimensions of Citizenship: Architecture and Belonging from the Body to the Cosmos*, ed. Nick Axel, Nikolaus Hirsch, Ann Lui, and Mimi Zeiger (Los Angeles: Inventory Press, 2018), 90–101.

40 LeMenager, *Living Oil*, 18.

41 Imre Szeman and Jennifer Wenzel, "What Do We Talk about When We Talk about Extractivism?," *Textual Practice* 35, no. 3 (2021): 505–23.

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