BOOK REVIEW

ADMINISTRATION, DISTRUST, AND THE ENERGY TRANSITION

Climate of Contempt: How to Rescue the U.S. Energy Transition From Voter Partisanship
By David B. Spence. New York: Columbia University Press, 2024.
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Climate change is one of the greatest threats facing the United States. The majority of Americans believe that the federal government should be doing more to confront the climate challenge and prioritize the buildout of infrastructure supporting the energy transition. In spite of this, U.S. climate policy is moving in the opposite direction. In his new book, Climate of Contempt: How to Rescue the U.S. Energy Transition From Voter Partisanship, *Professor David B. Spence blames increasing polarization and partisanship, fueled by social media, for our inability to act as a nation in the face of an existential threat like climate change. He argues that genuine dialogue about climate policy—that leaves all net-zero options on the table, discusses trade-offs frankly, and engages critical questions rather than dismissing them—is vital to building a durable climate coalition that supports meaningful regulation.*

This Book Review suggests that Spence's approach is necessary, but not sufficient, to ensure sound climate policy. Highlighting the knowledge-producing functions of federal agencies, it emphasizes the critical role that government research on climate science, climate impacts, and new technologies play in the policy conversations Spence seeks. The Book Review outlines recent actions by the executive branch to undercut knowledge production and dissemination at the National Oceanic and Atmospheric Administration, the Department of Energy, and other federal agencies. Concluding that substitutes are unlikely to be sufficient, it suggests approaches that Congress and other actors might take to defend agency knowledge production, promote transparency, and strengthen the integrity of federal-agency-produced data.

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INTRODUCTION

The World Meteorological Organization's 2024 *State of the Climate* report is bleak. Greenhouse gas emissions reached record levels in 2023 and are still increasing.[1] Polar sea ice continues to decline, and ocean temperatures continue to rise.[2] Extreme weather events linked to climate change affected millions of people globally and exacerbated problems of food insecurity and human displacement.[3] The year 2024 surpassed 2023 to become the warmest year on record.[4]

While society is already experiencing some effects of planetary warming, urgent action can still avert the worst outcomes. The most recent report from the UN's Intergovernmental Panel on Climate Change (IPCC) warns that the world must achieve "rapid, deep, and in most cases immediate [greenhouse gas] emission reductions in all sectors" to avoid levels of warming beyond two degrees Celsius and the irreversible impacts that would accompany them.[5]

The United States, however, seems to be moving in the opposite direction. Congress has been unable to coalesce around a regulatory

1. World Meteorol. Org., State of the Climate in 2024: Update for COP29, at ii (2024), https://library.wmo.int/viewer/69075/download?file=State-Climate-2024-Update-COP29_en.pdf&type=pdf&navigator=1 (on file with the *Columbia Law Review*).

2. Id.

3. Id. at 6.

4. Press Release, Nat'l Oceanic & Atmospheric Admin., 2024 Was the World's Warmest Year on Record (Jan. 10, 2025), https://www.noaa.gov/news/2024-was-worlds-warmest-year-on-record [https://perma.cc/J54U-G4Y6].

5. Intergovernmental Panel on Climate Change, Climate Change 2023: Synthesis Report, Contribution of Working Groups I, II, and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 82 (H. Lee & J. Romero eds., 2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf [https://perma.cc/3FTC-5FJC].

strategy to mitigate greenhouse gas emissions. The signature piece of legislation on climate change and the energy transition—the Inflation Reduction Act—was passed in 2022 through a special process known as reconciliation, which allowed it to be enacted over the votes of every single congressional Republican.[6] The Act imposed no direct restrictions on greenhouse gas emissions, instead providing government dollars to support clean energy industries (alongside some dirtier ones).[7] Now even this approach has been gutted by another reconciliation bill.[8]

Professor David B. Spence's new book, *Climate of Contempt*,[9] helps make sense of the current state of climate and energy policy in America. Spence draws on law as well as economics, sociology, psychology, and ethics to conclude that increasing polarization and partisanship, exacerbated by social media, are to blame for the lack of progress.[10] Spence argues that the only way to work through our current impasse is to engage in face-to-face dialogue with opponents of climate policy. By treating them with respect and taking their concerns seriously, Spence argues, we can build the climate coalition.[11]

Part I of this Book Review describes *Climate of Contempt*'s approach and summarizes its main arguments. Part II argues that Spence's account is important but incomplete. This is because the partisanship and polarization that Spence blames for our lack of progress on the energy transition are also eroding faith in government institutions. This Part describes efforts to undermine federal climate and clean energy policy

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6. Kristina M. Moore, Can Republicans Repeal the Inflation Reduction Act (IRA)?, Nat'l L. Rev. (Oct. 22, 2024), https://natlawreview.com/article/can-republicans-repeal-inflation-reduction-act-ira [https://perma.cc/ZLU3-CE4K].

7. See Bipartisan Pol'y Ctr., Inflation Reduction Act Summary: Energy and Climate Provisions 1–2 (2022), https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/08/Energy-IRA-Brief_R04.pdf (on file with the *Columbia Law Review*) ("Clean energy provisions in the bill would accelerate the deployment of clean energy technologies, reduce global emissions, lower energy prices, help export American innovation, strengthen our economy and build a reliable and affordable energy sector.").

8. See, e.g., Amy Turner, The One Big Beautiful Bill Act: Considerations for Cities and Community Partners, Sabin Ctr.: Climate L. Blog (July 7, 2025), https://blogs.law.columbia.edu/climatechange/2025/07/07/the-one-big-beautiful-bill-act-considerations-for-cities-and-community-partners/ [https://perma.cc/Z5NF-ERBJ] (noting that the One Big Beautiful Bill Act "guts many of the IRA's grant and loan programs"). Meanwhile, the Trump Administration has frozen and clawed back funds already awarded under the Act. Simmone Shah, How Trump Is Trying to Undo the Inflation Reduction Act, Time (Feb. 27, 2025), https://time.com/7262600/how-trump-is-trying-to-undo-the-inflation-reduction-act/ (on file with the *Columbia Law Review*); see also, e.g., Claire Brown, Waiting, Often in the Dark, for Frozen E.P.A. Funds, N.Y. Times (May 17, 2025), https://www.nytimes.com/2025/05/17/climate/puerto-rico-ira-funds-frozen.html (on file with the *Columbia Law Review*) (documenting how the frozen funds are impacting infrastructure projects in Puerto Rico).

9. David B. Spence, Climate of Contempt: How to Rescue the U.S. Energy Transition From Voter Partisanship (2024) [hereinafter Spence, Climate of Contempt].

10. E.g., id. at 2, 5.

11. Id. at 30.

that Professor Jody Freeman and I have described as "structural deregulation": the dismantling of federal agencies and, with it, their capacity to govern.[12] This erosion can create a pernicious feedback loop in which the dearth of government expertise makes it even more difficult to agree on basic facts, thus further fueling the propaganda machine and partisan entrenchment that Spence describes.

Part III turns to solutions. Given the unprecedented destruction of government capacity and knowledge production since January 20, 2025, Spence's call to focus on interpersonal dialogue is sound but insufficient. If climate policy is to stand a chance against the structural deregulation of agencies, Spence's approach must be paired with legal and structural responses that protect administrative knowledge production. Supreme Court rulings and presidential actions have made traditional efforts to shield agencies and their heads from presidential influence increasingly ineffective.[13] But there are still opportunities for Congress to defend agency knowledge production, require greater agency transparency, and strengthen data and scientific integrity policies. To enhance their legitimacy, agencies should also consider partnering with more trusted societal actors, including the military and professional organizations. These are longer-term solutions, however, and in the short term, it may be necessary to rely on substitute sources of climate and energy data and research outside of the federal government.

I. *CLIMATE OF CONTEMPT*

Early in the book's first chapter, Spence recounts a story from his own life. As a young man in 1979, Spence was living near the Three Mile Island nuclear power plant in Pennsylvania when one of its reactors experienced a partial meltdown.[14] That event, and the antinuclear messaging from copartisans and pop culture that followed, led Spence to become involved in antinuclear activism.[15] Over time, however, Spence's position changed. As he studied energy policy and the power sector, as he puts it, his "moral clarity . . . became muddied by a more complicated reality."[16]

This is the kind of experience Spence hopes that more people will have more frequently. The experience need not be related to the desirability of nuclear power or any other particular policy area. But the book encourages readers to *complicate* their own beliefs and understandings through investigation and reflection as an antidote to the

12. See Jody Freeman & Sharon Jacobs, Structural Deregulation, 135 Harv. L. Rev. 585, 588, 591–92 (2021) [hereinafter Freeman & Jacobs, Structural Deregulation].

13. See infra notes 179–181 and accompanying text.

14. Spence, Climate of Contempt, supra note 9, at 4.

15. Id.

16. Id.

partisan oversimplification that increasingly dominates U.S. culture and, especially, the modern media environment.

In part, this is a book about climate change and energy law. It is a book about how society can transition from a fossil-fuel-based energy system to a low- or net-zero carbon system in time to avert the worst effects of climate change. There are deep dives into the federal Clean Air Act,[17] the distributional consequences of rooftop solar ratemaking,[18] and the intricacies of energy market restructuring.[19] In the debate about what form climate and energy legislation should take, Spence is firmly on the side of regulatory limits rather than industrial policy.[20] Spence is a defender of what he calls "well-regulated capitalism"[21] and does not support regulation that disincentivizes wealth creation.[22] He yearns, however, for a new "republican moment[]" in energy law that will produce comprehensive legislation like 1935's Federal Power Act or 1970's Clean Air Act.[23] In this sense, the book is a response to those who have championed the emergence of green industrial policy, either on its own terms or as a second-best alternative in the face of political impasse.[24] Spence, by contrast, refuses to accept the impasse as a given. His project attacks its roots.

This is therefore a book about much more than climate and energy law. It is also a book about human psychology, modern technology, and the way the two have collided to produce devastating consequences for law and governance in contemporary America. The impediments to tackling the climate crisis, Spence argues, are largely political. Collective action is inhibited by ideological polarization, populism, and tribalism. "When one's political party becomes central to one's identity, as it has for many today," Spence argues, a "suite of social and cultural biases comes with it."[25] Climate policy is a casualty of this dynamic.

The second part of the book is devoted to understanding the causes of this partisan paralysis. It focuses much of its attention on the online spread of propaganda and its tendency to exacerbate bias.[26] Spence argues

17. Id. at 55–58.

18. Id. at 91–93.

19. Id. at 74–86.

20. See id. at 3.

21. Id. at 12 (emphasis omitted).

22. Id.

23. Id. at 62–64, 129.

24. See, e.g., Daniel A. Farber, Toward a Future-Facing Climate Policy: Shifting the Focus From Emission Regulation to the Energy Transition, 50 Colum. J. Env't L. 1, 6 (2025) (defending government funding for new energy systems as an alternative to emission reduction legislation); Daniel A. Farber, Turning Point: Green Industrial Policy and the Future of U.S. Climate Action, 11 Tex. A&M L. Rev. 303, 306 (2024) (describing positive feedback loops that will amplify the effects of the major climate and energy spending bills passed during the Biden Administration).

25. Spence, Climate of Contempt, supra note 9, at 138.

26. See id. at 129–64.

that people increasingly rely on online sources as knowledge proxies and that those sources are sloppier, more ideologically tailored, and more negative in their characterizations of opposing views—and those who hold them—than traditional sources.[27] For Spence, therefore, a simple problem at the root of the current stalemate is that we no longer talk to one another.[28] Instead, we engage in shallow back-and-forth sniping online. By cultivating fear and skillfully manipulating the online information environment, he argues, partisan propagandists have been able to convert political preference into righteous indignation.[29]

Spence has long been interested in the effects of partisanship on law and policy. In a 2013 article, he pleaded for cool analysis to replace moral outrage in the partisan debate over shale gas production.[30] A few years later, he analyzed partisan opposition to the Obama Administration's regulation of coal-fired power plants.[31] Most recently, he contributed a chapter on partisan polarization and the bureaucracy to an edited volume.[32] In addition to his scholarly work, Spence founded the Energy Tradeoffs project, which publishes recorded conversations with energy experts on aspects of the energy transition.[33] The project's participants are all proponents of the transition. Their interviews, however, emphasize the genuine trade-offs that can arise in energy systems between affordability, reliability, and environmental performance.[34] In other words, the project presents the energy transition in all its messiness and complexity.

As Spence argued in an earlier article, these trade-offs and the political realities they entail mean that "the shortest (and surest) route to [decarbonization] may not be a straight line."[35] Or, as Spence puts it in *Climate of Contempt*, "We are more likely to build *durable* voter support for the transition and to minimize its opportunity costs by leaving all net-zero

27. Id. at 140–45.

28. See id. at 118–19.

29. Id. at 96, 129–30.

30. David B. Spence, Responsible Shale Gas Production: Moral Outrage vs. Cool Analysis, 25 Fordham Env't L. Rev. 141, 145–46 (2013).

31. David E. Adelman & David B. Spence, Ideology vs. Interest Group Politics in U.S. Energy Policy, 95 N.C. L. Rev. 339, 342–43, 355–60 (2017) (concluding that the rules' benefits outweighed their costs, even at the local level).

32. David B. Spence, The Effects of Partisan Polarization on the Bureaucracy, *in* Can America Govern Itself? 271 (Frances E. Lee & Nolan McCarty eds., 2019).

33. Energy Tradeoffs, https://www.energytradeoffs.com/ [https://perma.cc/Q9DC-HK5F] (last visited Sep. 12, 2025). I participated in the project as a site overseer and administrator, as well as an interviewer. Id.

34. See, e.g., id. ("Fossil fuel combustion . . . imposes enormous costs on society . . . . Nevertheless, someone must pay for the construction of new infrastructure necessary to make the [energy] transition a reality. . . . Acknowledging that fact, and making decisions about how those costs should be distributed, are important elements of a green transition.").

35. David B. Spence, Paradoxes of "Decarbonization", 82 Brook. L. Rev. 447, 452 (2017).

options open, by discussing trade-offs openly and frankly, and by engaging critical questions rather than dismissing them or attacking the questioner."[36]

One of the things that sets Spence's treatment apart is its willingness to practice the tolerance it preaches. The climate coalition, Spence argues, largely fails to acknowledge that some opposition to climate policy and the energy transition is not the product of ignorance but of good faith disagreement about, for example, how much to focus on mitigation versus adaptation, how to address renewable energy's intermittency problem, how much to discount the cost of present interventions, or the role of technological innovation.[37] By failing to engage in debate about these questions and others, he concludes, the coalition alienates potential allies.[38]

Climate of Contempt identifies genuine challenges that advocates of the energy transition must reckon with, including how to ensure reliability on a grid powered with more intermittent sources of electricity such as wind and solar, how to keep energy costs affordable as we transition to a zero-carbon future, and how to bring new generation online.[39]

The book does not explore possible answers to these challenges, perhaps because its focus is on identifying points of legitimate disagreement rather than arguing for particular solutions. Yet those solutions exist. Take grid reliability. Energy storage can balance the variability of wind and solar power.[40] Building new transmission lines to connect different parts of the national grid will allow for better balancing of power across regions.[41] A greater threat to grid reliability is the electricity demand growth driven by the power-hungry data centers that support artificial intelligence, cryptocurrency, and other technologies and, to a lesser extent, the electrification of homes and transportation.[42] The rapid growth

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36. Spence, Climate of Contempt, supra note 9, at 168.

37. Id. at 123.

38. Id. at 168.

39. Id. at 168, 182.

40. See MIT Energy Initiative, The Future of Energy Storage, at xi (2022), https://energy.mit.edu/wp-content/uploads/2022/05/The-Future-of-Energy-Storage.pdf [https://perma.cc/FVE4-6CML] ("Electricity storage, the focus of this report, can play a critical role in balancing electricity supply and demand and can provide other services needed to keep decarbonized electricity systems reliable and cost-effective.").

41. See, e.g., Alexander Roth & Wolf-Peter Schill, Geographical Balancing of Wind Power Decreases Storage Needs in a 100% Renewable European Power Sector, iScience, July 21, 2023, at 1, 7 (finding that, in an idealized model of twelve European countries running on 100% renewable energy, geographical balancing of wind and grid interconnection would decrease storage requirements by about 30%).

42. See, e.g., Arman Shehabi et al., Lawrence Berkeley Nat'l Lab'y, 2024 United States Data Center Energy Usage Report 5–7 (2024), https://eta-publications.lbl.gov/sites/default/files/2024-12/lbnl-2024-united-states-data-center-energy-usage-report.pdf? (on file with the *Columbia Law Review*) (predicting that data center electricity consumption would account for approximately 6.7%–12% of total U.S. consumption by 2028, compared with 1.9% in 2018 and 4.4% in 2023); Robert Walton, Five-Year US Load Growth Forecast Surges 456%, to 128 GW: Grid Strategies, Utility Dive (Dec. 6, 2024),

of data centers in particular has entered into the social consciousness only recently,[43] and thus it does not feature prominently in Spence's book. That growth is raising urgent questions for policymakers not only about reliability but also about equity and decarbonization. Yet those questions, too, have answers. Data center efficiency can be improved.[44] Data center operators can partner with carbon-free generation to support their operations.[45] And regulators can control the scope and pace of data center interconnection with the grid to mitigate reliability challenges.[46]

Electricity costs are proving a more intractable challenge, especially in places like California.[47] But rising costs are not coming primarily from the construction of new renewable generation, which is now cost-competitive with fossil-fuel sources, even without government subsidies.[48] Rather, rising rates are due to the increased costs of maintaining electrical systems, especially in parts of the country prone to wildfires and other climate-fueled natural disasters,[49] as well as social policies embedded in

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https://www.utilitydive.com/news/shocking-forecast-us-electricity-load-could-grow-128-gw-over-next-5-years-Grid-Strategies/734820/ [https://perma.cc/ZTN5-QH9U] (predicting a 15.8% increase in U.S. electricity demand by 2029, driven largely by manufacturing and data centers).

43. See, e.g., Tim McLaughlin, Big Tech's Data Center Boom Poses New Risk to US Grid Operators, Reuters (Mar. 19, 2025), https://www.reuters.com/technology/big-techs-data-center-boom-poses-new-risk-us-grid-operators-2025-03-19/ [https://perma.cc/3QNV-SM46] ("[T]he rapid expansion of data centers . . . is forcing grid operators to plan for new contingencies and complicating the already difficult task of balancing the country's supply and demand of electricity.").

44. See Juliana Ennes, Big Tech, Power Grids Take Action to Reign in Surging Demand, Reuters (Aug. 18, 2025), https://www.reuters.com/business/energy/big-tech-power-grids-take-action-reign-surging-demand-2025-08-18/ [https://perma.cc/4MFB-JU6A] (last updated Aug. 20, 2025) (describing the use of alternative cooling strategies, high-efficiency components, and direct current to increase efficiency).

45. See Yuki Numata, Alexandra Gorin, Laurens Speelman, Lauren Shwisberg & Chiara Gulli, Fast, Flexible Solutions for Data Centers, Rocky Mountain Inst. (July 17, 2025), https://rmi.org/fast-flexible-solutions-for-data-centers/ [https://perma.cc/KSH5-V6EM] (explaining colocation strategies).

46. See Mike Granowski, Opinion, Shaping the Future of Data Centers in Light of FERC's AWS, Talen Energy Ruling, Utility Dive (Nov. 25, 2024), https://www.utilitydive.com/news/data-centers-ferc-aws-amazon-web-services-talen-energy-nuclear/733865/ [https://perma.cc/M2BF-425C] (describing regulators' efforts to manage data center growth).

47. See Severin Borenstein, Meredith Fowlie & James Sallee, Designing Electricity Rates for an Equitable Energy Transition 10, 34–36 (Energy Inst. at Haas, Working Paper No. 314, 2021), https://haas.berkeley.edu/wp-content/uploads/WP314.pdf [https://perma.cc/F7YL-2A3J] [hereinafter Borenstein et al., Designing Electricity Rates] (describing California's high rates and exploring rate-design principles).

48. Benjamin Storrow & E&E News, Wind and Solar Energy Are Cheaper Than Electricity From Fossil-Fuel Plants, Sci. Am. (June 17, 2025), https://www.scientificamerican.com/article/wind-and-solar-energy-are-cheaper-than-electricity-from-fossil-fuel-plants/ [https://perma.cc/PXF4-RVRF].

49. Laurence Du Sault, Here's Why Your Electricity Prices Are High and Soaring, CalMatters: Cal. Divide (Mar. 12, 2021), https://calmatters.org/california-divide/2021/03/

electricity rates.[50] But here, the answer cannot be to pull back from the very investments that will mitigate carbon pollution and, by extension, the very disasters that are causing rates to spike. Rather, social programs currently subsidized by ratepayers can be supported instead through the tax code,[51] customer demand can be shifted away from times of peak consumption,[52] and greater grid interconnection can facilitate lower wholesale rates.[53]

Finally, there are difficult questions about where to locate the new infrastructure that a zero-carbon energy system will require.[54] Spence argues persuasively that the primary barriers to getting new transmission lines sited are regulatory, produced by a tragedy of the anticommons:[55] Transmission developers must secure permissions from state and local governments along their routes, many of which may be ill-disposed to grant such permissions to a line that will have few direct benefits for local

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california-high-electricity-prices/ [https://perma.cc/6NXD-M4WB] (last updated Apr. 19, 2023).

50. See, e.g., Borenstein et al., Designing Electricity Rates, supra note 47, at 10 ("If a utility charges a retail electricity price equal to social marginal cost, . . . it would probably not collect enough revenue to cover all of the costs of the grid, as well as other priorities that are currently supported via volumetric (i.e., per-kWh) rates."); see also Severin Borenstein, Meredith Fowlie & James Sallee, Energy Inst. at Haas, Paying for Electricity in California: How Residential Rate Design Impacts Equity and Electrification 18–21 (2022), https://www.next10.org/sites/default/files/2022-09/Next10-paying-for-electricity-final-comp.pdf [https://perma.cc/V62J-J9YU] [hereinafter Borenstein et al., Paying for Electricity] (arguing that, while electricity prices should capture the social cost of electricity consumption, they are overinclusive in passing costs that are not directly tied to supplying electricity on to the public).

51. Borenstein et al., Paying for Electricity, supra note 50, at 25.

52. See Demand Response (DR), Cal. Pub. Utils. Comm'n, https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr [https://perma.cc/42AK-JW77] (last visited Sep. 12, 2025) (explaining that demand response programs avoid the costs of purchasing high-priced energy and constructing new power plants and transmission infrastructure).

53. See Joshua D. Rhodes, The Old, Dirty, Creaky US Electric Grid Would Cost $5 Trillion to Replace. Where Should Infrastructure Spending Go?, The Conversation (Mar. 16, 2017), https://theconversation.com/the-old-dirty-creaky-us-electric-grid-would-cost-5-trillion-to-replace-where-should-infrastructure-spending-go-68290 [https://perma.cc/4WMF-Q58F] (noting that transmission grid expansion can lower power costs).

54. See Spence, Climate of Contempt, supra note 9, at 186–90 ("*All* new energy infrastructure attracts some sincere and rational local opposition, as well as sincere, rational local support, because new energy projects inevitably impose *some* costs on *some* locals, and *some* of those locals do not capture (or value) the benefits that the projects bring.").

55. See James W. Coleman, The Jurisdictional Anticommons, *in* Getting to Yes on Linear Infrastructure Projects 7, 8 (2021), https://macdonaldlaurier.ca/files/pdf/20201210_Linear_Infrastructure_Projects_COLLECTION_FWeb.pdf [https://perma.cc/NK8L-DQUC] ("The jurisdictional anticommons is a growing problem for resource development around the world—pipelines and power lines are being held up waiting for approvals from one or two of the jurisdictions they need to sign off.").

communities.[56] The cure for this regulatory patchwork, Spence hints in his book (and has argued more explicitly elsewhere[57]), is stronger federal permitting authority.[58] Siting processes may also need to be streamlined (though not hollowed out entirely[59]) to bring more generation online.[60]

Reliability, cost, and infrastructure siting are issues requiring thoughtful debate, and reasonable people may disagree about solutions. Spence has his own views about the kind of policies needed to meet the climate challenge. He suggests that we need a significant regulatory response not unlike that resulting from the environmental movement of the 1970s.[61] He points, for example, to the need for regulatory intervention to confront the shortcomings of competitive energy markets, which do not always produce the energy goods and services that people want or need without government involvement.[62] Policies like subsidies and state renewable portfolio standards, he argues, have also played an important role in bringing down the cost of renewable generation.[63]

Importantly, however, one need not agree with the book's specific policy conclusions to grasp its larger argument: that climate and energy policy in this country suffer from a surfeit of partisan posturing. The next Part argues that the problem is even worse than the book suggests and that developments since its publication require us to look beyond individual discord to the current attacks on the government's administrative competence.

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56. Spence, Climate of Contempt, supra note 9, at 89. For a recent example, see David Gelles, With One Call, Trump Alters the Fate of a Contested Power Project, N.Y. Times (July 17, 2025), https://www.nytimes.com/2025/07/17/climate/hawley-grain-belt-express-invenergy-trump.html (on file with the *Columbia Law Review*) (describing Missouri lawmakers' opposition to a transmission line that would bring new renewable power to population centers but whose benefits would not be concentrated in Missouri).

57. David Spence, Energy Policy's Orphaned Good Idea, Regul. Rev. (Mar. 5, 2018), https://www.theregreview.org/2018/03/05/spence-energy-policys-orphaned-good-idea/ [https://perma.cc/S32P-AVX3].

58. See Spence, Climate of Contempt, supra note 9, at 89 ("Because the [Federal Power Act] reserves permitting authority for interstate transmission lines to the states, barriers to entry are especially high for long-distance lines that cross multiple states.").

59. See, e.g., Ian M. Stevenson, Interior Wants to Do NEPA Reviews in 28 Days. Is That Even Possible?, E&E News: Energywire (May 15, 2025), https://www.eenews.net/articles/interior-wants-to-do-nepa-reviews-in-28-days-is-that-even-possible/ [https://perma.cc/72XQ-Z6GF] (describing the Interior Department's plan to "fast-track environmental reviews").

60. See Alexandra B. Klass & Matthew Appel, The Law of Energy Abundance, 104 N.C. L. Rev. 63, 94–104 (2025) (proposing solutions to permitting bottlenecks for clean energy); J.B. Ruhl & James Salzman, The Greens' Dilemma: Building Tomorrow's Climate Infrastructure Today, 73 Emory L.J. 1, 6–7, 26–34 (2023) (describing the ways that infrastructure siting laws can slow down development).

61. See Spence, Climate of Contempt, supra note 9, at 64 (lamenting the fact that the political conditions for such a moment are not present in Congress today).

62. See id. at 81–86 (describing how "those who oversee the competitive parts of the U.S. electricity market continue to struggle to make those markets work for the benefit of consumers").

63. Id. at 87–88.

II. CONTEMPT AND THE UNDERMINING OF GOVERNMENT CAPACITY

In his final chapter, Spence argues that the growth of "group contempt . . . weakens the liberal democratic institutions through which we must craft solutions to national problems such as climate change."[64] He reminds readers that "[t]hose institutions require care and maintenance, which require some minimum threshold amount of respect for pluralism (across social and political groups)."[65] Yet *Climate of Contempt* was published before President Donald Trump began his second term in office. Perhaps for this reason, the book devotes little attention to the health of the government agencies whose work underpins climate and energy policy.

The problem of agency decline deserves greater consideration, however, for two reasons. First, the decline is ultimately a product of the same forces Spence singles out—partisanship, polarization, and tribalism—magnified by the new media environment. Today, trust in government is at an all-time low.[66] Over 70% of those polled during the Eisenhower and Johnson Administrations said they trusted the federal government to do what is right "just about always" or "most of the time," compared with just 17% in 2025.[67]

There is a partisan dimension to this lack of trust, with skepticism about federal agencies, in particular, deeper on the Right than on the Left.[68] Administration has thus become a political issue. The Heritage Foundation's *Project 2025* report sought to prepare "conservatives to go to work on Day One to deconstruct the Administrative State."[69] It is also no accident that the breakdown of trust in government coincides with the

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64. Id. at 201.

65. Id.

66. See Pew Rsch. Ctr., Americans' Views of Government: Decades of Distrust, Enduring Support for Its Role 8 (2022), https://www.pewresearch.org/wp-content/uploads/sites/20/2022/06/PP_2022.06.06_views-of-government_REPORT.pdf [https://perma.cc/3KJK-8UK3] (reporting that only 9% of Republicans say they trust government just about always or most of the time, compared with 29% of Democrats, the lowest levels reported in the last sixty years).

67. Public Trust in Government: 1958–2025, Pew Rsch. Ctr. (Dec. 4, 2025), https://www.pewresearch.org/politics/2024/06/24/public-trust-in-government-1958-2025/ [https://perma.cc/6NFT-4NFD].

68. See Andy Cerda, Americans See Many Federal Agencies Favorably, but Republicans Grow More Critical of Justice Department, Pew Rsch. Ctr. (Aug. 12, 2024), https://www.pewresearch.org/short-reads/2024/08/12/americans-see-many-federal-agencies-favorably-but-republicans-grow-more-critical-of-justice-department/ [https://perma.cc/T5LA-Q78L] (finding that a majority of Democrats expressed more favorable than unfavorable views for all sixteen federal agencies in a poll, whereas Republicans expressed more unfavorable than favorable views for eleven of the sixteen).

69. Paul Dans, The 2025 Presidential Transition Project: A Note on "Project 2025", *in* Mandate for Leadership: The Conservative Promise, at xiii, xiv (Paul Dans & Steven Groves eds., 2023), https://static.heritage.org/project2025/2025_MandateForLeadership_FULL.pdf [https://perma.cc/FM8C-M57H] [hereinafter Project 2025].

election of a President who ran on a platform of "drain[ing] the swamp"[70] and dismantling government agencies.[71] The Trump Administration's subsequent actions have made good on those commitments, threatening agency capacity.[72]

The second reason that institutional decline deserves greater attention is that government agencies are vital to the success of Spence's mission. Through the expansion of its data-gathering and research capacities—its knowledge-production functions—the federal government has come to play a key role in societal knowledge making.[73] To engage in the genuine policy debate and policymaking that *Climate of Contempt* longs for, citizens and policymakers alike must operate from a common base of understanding. Historically, the government has played a major role in supplying that factual foundation, whether through data gathering and production, its own research, or sponsoring outside studies.[74]

The federal government's role as knowledge producer is so established that even its critics rely on its findings. Spence cites the example of "former Trump environmental advisor Steve Milloy, who told his 123,400 Twitter/X followers in 2023 that '[the National Oceanic and Atmospheric Administration (NOAA)] makes it official. Last 8 years . . . global cooling.'"[75] In fact, NOAA had found that the last eight years were

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70. Ted Widmer, Draining the Swamp, New Yorker (Jan. 19, 2017), https://www.newyorker.com/news/news-desk/draining-the-swamp (on file with the *Columbia Law Review*) (internal quotation marks omitted) (quoting President Trump).

71. See Fact Sheet: President Donald J. Trump Creates New Federal Employee Category to Enhance Accountability, White House (Apr. 18, 2025), http://whitehouse.gov/fact-sheets/2025/04/fact-sheet-president-donald-j-trump-creates-new-federal-employee-category-to-enhance-accountability/ [https://perma.cc/F3F2-NUJX] ("President Trump is delivering on his promise to dismantle the deep state and reclaim our government from Washington corruption.").

72. The federal government's general communications function has also been threatened by the defunding of the Corporation for Public Broadcasting and the consequential devastation of public media stations across America. Benjamin Mullin, Corporation for Public Broadcasting Votes to Shut Down, N.Y. Times (Jan. 5, 2026), https://www.nytimes.com/2026/01/05/business/media/corporation-for-public-broadcasting.html (on file with the *Columbia Law Review*); Steven Portnoy & Sarah Beth Hensley, What $9B Spending Cuts Could Mean for PBS, NPR Stations, Especially in Rural Areas, ABC News (July 17, 2025), https://abcnews.go.com/Politics/9b-spending-cuts-pbs-npr-stations/story?id=123838955 [https://perma.cc/PV5H-ZRFU].

73. On knowledge making in environmental law, see generally William Boyd, Genealogies of Risk: Searching for Safety, 1930s–1970s, 39 Ecology L.Q. 895 (2012) (noting that environmental law "has always faced difficult challenges in acquiring knowledge of the specific problems that it seeks to regulate and translating that knowledge into regulatory practice").

74. This is what Professor William Boyd calls "the regulatory state's substantial role in fact making." William Boyd, De-Risking Environmental Law, 48 Harv. Env't L. Rev. 153, 166 (2024) [hereinafter Boyd, De-Risking].

75. Spence, Climate of Contempt, supra note 9, at 158 (alteration in original) (quoting Steve Milloy).

the *warmest* on record.[76] But Milloy clearly found it helpful to invoke NOAA as a source of authority, even while mischaracterizing its data.

But federal knowledge production is under attack in the United States today, and partisan dissensus about the role government should play in society is at an all-time high.[77] On the Right, anti-administrativism is on the rise.[78] In her 2017 *Harvard Law Review* foreword, Professor Gillian Metzger described a broad attack on administrative government by the first Trump Administration, the Supreme Court, lower court judges, and a handful of academics.[79] Metzger recounted an "almost visceral resistance to an administrative government perceived to be running amok"[80] and argued that "contemporary anti-administrativism may serve to undercut the legitimacy of national administrative governance."[81]

A few years later, Professor Freeman and I wrote about a key weapon of anti-administrativism that we called structural deregulation.[82] *Substantive* deregulation involves the rollback of rules and other government policies through established legal channels.[83] It is largely transparent and provides opportunities for contestation. *Structural* deregulation, by contrast, is the deliberate undermining of federal agency capacity through a combination of staffing reductions, funding deprivations, expertise depletions, and reputational attacks.[84] Its implementation is largely informal and therefore harder to track, and it is more difficult to challenge under existing laws.[85] It leaves federal agencies unable to perform their statutory duties effectively.[86] Moreover, this depletion of agency resources and capabilities can be difficult and time-consuming to repair and thus can do long-term damage to the machinery of government.[87]

The tools of structural deregulation were not invented by the Trump Administration.[88] But this Administration, especially in its second incarnation, has used the techniques of structural deregulation more

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76. Id.

77. See supra notes 67–69 and accompanying text.

78. See Gillian E. Metzger, The Supreme Court, 2016 Term—Foreword: 1930s Redux: The Administrative State Under Siege, 131 Harv. L. Rev. 1, 3–4 (2017) (describing the rise of anti-administrative rhetoric and attacks on the constitutionality of administrative government as typifying "contemporary anti-administrativism").

79. See id. at 17–34.

80. Id. at 34.

81. Id. at 49.

82. Freeman & Jacobs, Structural Deregulation, supra note 12.

83. Id. at 588.

84. Id. at 591–92.

85. Id. at 635, 638–52 (describing the problems with using existing law to challenge structural deregulation).

86. See id. at 664 (noting that structural deregulation erodes "the foundational capacities on which agencies rely").

87. Id at 665.

88. See id. at 591–623 (offering examples from the Reagan, Clinton, Obama, and Trump Administrations).

fearlessly and more pervasively than any of its predecessors to decimate administrative programs and, in some cases, entire agencies.[89] The Administration's targets include key programs supporting the energy transition and the broader response to climate change.[90]

As the sections below will show, this great unraveling of the federal government's capacity has significant implications. It threatens both the production and the credibility of government information. Unless that capacity can be preserved, people may be unable to agree on even the factual starting points of the climate debate, and Spence's dialogue-building project will falter.

The remainder of this Part first describes structural deregulation at two agencies critical to the climate response and the energy transition: NOAA and the Department of Energy (DOE). It then describes other agency programs that have been undermined, including research programs at the National Science Foundation (NSF) and cross-government programs to assess climate impacts.

A. *Climate Monitoring: The Incapacitation of NOAA*

The federal government has long been a key source of information and research about energy, the atmosphere, and, more recently, climate change. NOAA was founded in 1970 and took over work originally performed by the U.S. Coast and Geodetic Survey (founded in 1807), the Weather Bureau (founded in 1870), and the U.S. Commission of Fish and Fisheries (founded in 1871).[91]

NOAA is the nation's preeminent climate science organization,[92] and it has been targeted by the Trump Administration at least in part for that reason.[93] The Administration has laid off more than eight hundred Agency

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89. See Jody Freeman & Sharon Jacobs, President Trump's Campaign of 'Structural Deregulation', Lawfare (Feb. 12, 2025), https://www.lawfaremedia.org/article/president-trump-s-campaign-of–structural-deregulation [https://perma.cc/S7G5-B88N] (discussing the Administration's "steps to abolish the U.S. Agency for International Development" and "siege" on the Consumer Financial Protection Bureau).

90. The speed and scope of this assault are such that the observations here will necessarily be out of date by the time of publication. Yet they tell an important history of the first year of the second Trump Administration. They also convey an overall sense of a deregulatory movement that seeks institutional retrenchment and restructuring rather than a simple rolling back of particular policies.

91. Our History, Nat'l Oceanic & Atmospheric Admin., https://www.noaa.gov/heritage/our-history [https://perma.cc/KH8U-73CG] (last updated Dec. 11, 2025).

92. NOAA also provides weather information and forecasting that private actors rely on. See, e.g., Paul Voosen, NOAA Firings Hit the Birthplace of Weather and Climate Forecasting, Science (Mar. 4, 2025), https://www.science.org/content/article/noaa-firings-hit-birthplace-weather-and-climate-forecasting (on file with the *Columbia Law Review*).

93. *Project 2025*, the manifesto written by former Trump Administration officials, identified NOAA as "one of the main drivers of the climate change alarm industry." Thomas F. Gilman, Department of Commerce, *in* Project 2025, supra note 69, at 663, 675; see also Amy Sherman, Fact-Checking What Project 2025 Says About the National Weather Service

staff members.[94] About five hundred more departed after accepting the Administration's deferred resignation offers.[95] Cancellation of contracts could result in the termination of thousands of additional workers.[96] At an Agency that employs only about twelve thousand personnel worldwide (more than half of whom are scientists or engineers),[97] these departures are significant. To date, NOAA's staffing has been reduced by at least 10%.[98] At the same time, leases for the Agency's buildings have purportedly been canceled and employees' work credit cards have been frozen.[99]

Internal documents reported on by *Science* suggest that the Administration sought to prevent NOAA from spending all of its appropriated research funds in 2025.[100] The President's budget request for fiscal year 2026 would further diminish the Agency. It would shrink NOAA's overall budget by 25% and its office of Oceanic and Atmospheric Research's budget by 75%.[101] The proposed budget eliminates significant climate and weather research functions and cuts investments in satellite technology that supports not only weather forecasting but also climate

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and NOAA, PBS News (Sep. 29, 2024), https://www.pbs.org/newshour/politics/fact-checking-what-project-2025-says-about-the-national-weather-service-and-noaa (on file with the *Columbia Law Review*).

94. Thomas Mackintosh, Hundreds in US Climate Agency Fired in Latest Cuts, BBC (Feb. 28, 2025), https://www.bbc.com/news/articles/cdell8n14x2o [https://perma.cc/8DD7-BBBC].

95. Christopher Flavelle, Austyn Gaffney & Camille Baker, Hundreds Are Said to Quit NOAA in a New Round of Departures, N.Y. Times (Feb. 28, 2025), https://www.nytimes.com/2025/02/28/climate/noaa-trump-staff-cuts.html (on file with the *Columbia Law Review*).

96. Christopher Flavelle, Austyn Gaffney, Camille Baker & Ana Swanson, Mass Layoffs Begin at NOAA, With Hundreds Said to Be Fired in One Day, N.Y. Times (Feb. 27, 2025), https://www.nytimes.com/2025/02/27/climate/noaa-layoffs-trump.html (on file with the *Columbia Law Review*) [hereinafter Flavelle et al., Mass Layoffs Begin at NOAA]; Valerie Volcovici, Rich McKay & Leah Douglas, Trump's Firings at US Weather Agency Will Put Lives at Risk, Scientists Say, Reuters (Feb. 28, 2025), https://www.reuters.com/world/us/trumps-firings-us-weather-agency-will-put-lives-risk-scientists-say-2025-02-28/ [https://perma.cc/78UJ-L8TJ].

97. About Our Agency, Nat'l Oceanic & Atmospheric Admin., https://www.noaa.gov/about-our-agency [https://perma.cc/4HK6-CXJ3] (last updated Mar. 5, 2025).

98. Zack Colman, 'Set Up for Failure': Trump's Cuts Bring Climate and Energy Agencies to a Standstill, Workers Say, Politico (June 17, 2025), https://www.politico.com/news/2025/06/17/trumps-energy-cuts-means-agencies-failure-00406526 (on file with the *Columbia Law Review*).

99. Flavelle et al., Mass Layoffs Begin at NOAA, supra note 96.

100. Paul Voosen, Trump Administration Pushes Ahead With NOAA Climate and Weather Cuts, Science (Aug. 25, 2025), https://www.science.org/content/article/trump-administration-pushes-ahead-noaa-climate-and-weather-cuts (on file with the *Columbia Law Review*).

101. Alejandra Borunda, Major Budget Cuts Proposed for the National Oceanic and Atmospheric Administration, NPR (Apr. 11, 2025), https://www.npr.org/2025/04/11/nx-s1-5361366/major-budget-cuts-proposed-for-the-national-oceanic-and-atmospheric-administration [https://perma.cc/K62U-ECPZ].

research.[102] According to internal documents reflecting discussions between NOAA and OMB, the Administration's plan is to "eliminate all funding for climate, weather, and ocean laboratories and cooperative institutes" at the Agency.[103]

B. *Support for Research and Development: Retrenchment at the DOE*

The establishment of the DOE and its national laboratories were key events in the history of government research. Their origins can be traced to America's efforts to develop an atomic bomb in World War II after Albert Einstein wrote to President Franklin D. Roosevelt in August 1939 warning that Germany was likely intent on developing such a weapon.[104] The work spanned sites that would eventually become the Argonne, Livermore, Los Alamos, Oak Ridge, and Sandia National Laboratories.[105]

In 1977, Congress established the DOE and consolidated a suite of energy planning, research, and development responsibilities in the new Department,[106] including a comprehensive national laboratory system.[107] DOE's seventeen national laboratories are federally funded but are managed by private organizations under contract with the federal government.[108] In the wake of the 1970s oil crisis, these laboratories began to place special emphasis on nonnuclear energy research, including research on geothermal power, solar power, energy storage, and electricity transmission.[109] Today, they produce cutting-edge research on topics such as climate dynamics, electric vehicles, wind and solar power, lower-

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102. Id.

103. Paul Voosen, Trump Seeks to End Climate Research at Premier U.S. Climate Agency, Science (Apr. 11, 2025), https://www.science.org/content/article/trump-seeks-end-climate-research-premier-u-s-climate-agency (on file with the *Columbia Law Review*) (internal quotation marks omitted) (quoting an internal document).

104. The Top-Secret Laboratory, Oak Ridge Nat'l Lab'y: ORNL Rev. (Dec. 21, 2018), https://www.ornl.gov/news/top-secret-laboratory [https://perma.cc/6Y4F-LEUR] (last updated Oct. 30, 2025).

105. Robert W. Seidel, Science Policy and the Role of the National Laboratories, 21 Los Alamos Sci. 218, 220–21 (1993); see also Our History, Argonne Nat'l Lab'y, https://www.anl.gov/our-history [https://perma.cc/HR2H-FKZQ] (last visited Sep. 16, 2025) (describing the Argonne National Laboratory's early history as a laboratory for creating a nuclear weapon).

106. A Brief History of the Department of Energy, U.S. Dep't Energy, https://www.energy.gov/lm/brief-history-department-energy [https://perma.cc/A47G-J4G9] (last visited Sep. 12, 2025).

107. See 42 U.S.C. § 7139 (2018) (placing responsibility with the Office of Energy Research to advise the Secretary with respect to management of the laboratories under the DOE's jurisdiction).

108. Olof Hallonsten & Thomas Heinze, Institutional Persistence Through Gradual Organizational Adaptation: Analysis of National Laboratories in the USA and Germany, 39 Sci. & Pub. Pol'y 450, 451 (2012).

109. Seidel, supra note 105, at 225.

emission diesel fuel, energy efficiency, carbon capture and storage, and the electrical grid.[110]

At the DOE, return-to-office rules and incentive offers during the first few months of the second Trump Administration apparently produced voluntary resignations by several thousand employees (out of a total of around sixteen thousand).[111] The Administration also conducted a mass firing of probationary employees[112] and placed Department contractors on paid leave.[113] The impact on particular offices was even more substantial. More than half of the staff in the Loan Programs Office (now known as the Office of Energy Dominance Financing[114]), which, under the Biden Administration, provided loans and guarantees to clean energy, advanced transportation, and tribal energy projects,[115] opted for voluntary resignation.[116] While the Department's "reduction in force" plan has not been made public, sources report that only about nine thousand Department positions have been identified as "essential," leaving about 40% of its workforce vulnerable.[117]

Meanwhile, the Administration's proposed 2026 budget proposes large cuts to DOE science programs and a reorientation of research to

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110. Innovation, Nat'l Lab'ys, https://nationallabs.org/innovation/ [https://perma.cc/CY7E-YBUV] (last visited Sep. 12, 2025).

111. Maeve Allsup, 100 Days of Chaos at the Department of Energy, Latitude Media (May 1, 2025), https://www.latitudemedia.com/news/100-days-of-chaos-at-the-department-of-energy/ [https://perma.cc/KYS4-ES3F].

112. Some of these probationary employees were subsequently reinstated following a court order. Brian Dabbs, DOE Reinstates Fired Employees, E&E News: Energywire (Mar. 14, 2025), https://www.eenews.net/articles/doe-reinstates-fired-employees/ [https://perma.cc/STL7-FT8S].

113. Allsup, supra note 111.

114. Hannah Northey & Christa Marshall, Wright Overhauls DOE, Reflecting Shift in US Energy Priorities, E&E News: Greenwire (Nov. 20, 2025), https://subscriber.politicopro.com/article/eenews/2025/11/20/wright-overhauls-doe-reflecting-shift-in-us-energy-priorities-00662388 (on file with the *Columbia Law Review*).

115. Office of Energy Dominance Financing, U.S. Dep't Energy, https://www.energy.gov/lpo/loan-programs-office [https://perma.cc/34V3-FTHX] (last visited Jan. 9, 2026); see also Off. of Energy Dominance Fin., LPO Year in Review 2024, U.S. Dep't Energy (Jan. 17, 2025), https://www.energy.gov/lpo/articles/lpo-year-review-2024 (on file with the *Columbia Law Review*) (reporting on activities for the year).

116. Callie Patteson, DOE Loan Programs Office Poised to Lose Nearly 60% of Staff Amid DOGE Cuts, Wash. Exam'r (Apr. 17, 2025), https://www.washingtonexaminer.com/policy/energy-and-environment/3384111/energy-loan-programs-office-poised-lose-staff-doge-cuts/ (on file with the *Columbia Law Review*).

117. Jory Heckman, Energy Department Extends Hiring Freeze, Deems 43% Workforce Non-'Essential' in Reorganization Plan, Fed. News Network (Apr. 4, 2025), https://federalnewsnetwork.com/workforce/2025/04/energy-department-extends-hiring-freeze-deems-43-workforce-non-essential-in-reorganization-plan/?readmore=1 [https://perma.cc/4TZJ-NHJZ]; Lindsay McKenzie, DOE Secretary Defends Proposed Budget Cuts, Denies Freezing Funds, Am. Inst. Physics: Sci. Pol'y News (May 8, 2025), https://www.aip.org/fyi/doe-secretary-defends-proposed-budget-cuts-denies-freezing-funds [https://perma.cc/J6QZ-CSVF].

"Administration priorities, including high-performance computing, fusion energy, artificial intelligence/machine learning, quantum information science, critical minerals and materials, and microelectronics."[118] The DOE's Office of Clean Energy Demonstrations, established by the Bipartisan Infrastructure Law in 2021 to support early-stage demonstration projects in areas including grid-scale storage, small modular nuclear reactors, and carbon capture,[119] would "wind down [sic] operations" entirely.[120] The Office of Energy Efficiency and Renewable Energy would see its budget cut by about 75%, from $3.46 billion in fiscal year 2024 to $888 million in 2026.[121]

C. *Other Programs and Capabilities*

Budget cuts have also significantly impacted other agencies and programs responsible for climate or energy research and development. The NSF supports science and engineering research nationwide and is the source of 25% of the federal government's support to American colleges and universities for basic research.[122] To date, the NSF has terminated more than sixteen hundred grants totaling more than one billion dollars to researchers[123] and in April froze new funding "until further notice."[124] The NSF has also announced new screening procedures for grants in order to weed out "topics or activities that may not be in alignment with

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118. OMB, Technical Supplement to the 2026 Budget: Appendix 281–82 (2025), https://www.whitehouse.gov/wp-content/uploads/2025/05/appendix_fy2026.pdf [https://perma.cc/P3VD-6RM4].

119. Press Release, U.S. Dep't of Energy, DOE Establishes New Office of Clean Energy Demonstrations Under the Bipartisan Infrastructure Law (Dec. 21, 2021), https://www.energy.gov/articles/doe-establishes-new-office-clean-energy-demonstrations-under-bipartisan-infrastructure-law [https://perma.cc/9BXR-6KXF].

120. Sean Reilly, Andres Picon, Heather Richards & Nico Portuondo, White House Releases Details About Proposed Budget Cuts, E&E News: Greenwire (May 30, 2025), https://www.eenews.net/articles/white-house-releases-details-about-proposed-budget-cuts/ [https://perma.cc/W3KY-M8AA] (internal quotation marks omitted) (quoting OMB, supra note 118, at 291) (misquotation); see also Maeve Allsup, What It Means to Cut the Office of Clean Energy Demonstrations, Latitude Media (Apr. 4, 2025), https://www.latitudemedia.com/news/what-it-means-to-cut-the-office-of-clean-energy-demonstrations/ [https://perma.cc/MY7K-XQ5M].

121. 4 Off. of the Chief. Fin. Officer, U.S. Dep't of Energy, DOE/CF-0215, Department of Energy: FY 2026 Congressional Justification 4 (2025), https://www.energy.gov/sites/default/files/2025-08/doe-fy-2026-vol-4-v01.pdf [https://perma.cc/D4QP-SSFR].

122. About NSF, U.S. Nat'l Sci. Found., https://www.nsf.gov/about [https://perma.cc/2AP6-U24Z] (last visited Sep. 12, 2025).

123. Am. Ass'n of Physics Tchrs., Inc. v. Nat'l Sci. Found., No. 25-cv-1923 (JMC), 2025 WL 2615054, at *1 (D.D.C. Sep. 10, 2025).

124. Dan Garisto & Nature Mag., National Science Foundation Halts Funding Indefinitely, Sci. Am. (May 2, 2025), https://www.scientificamerican.com/article/under-trump-national-science-foundation-cuts-off-all-funding-to-scientists/ [https://perma.cc/M9P7-6S3A] (internal quotation marks omitted) (quoting an NSF email).

agency priorities."[125] The Administration has proposed cutting the NSF's budget by more than half.[126]

The funding crisis could deepen if Congress accepts the President's budget proposal for fiscal year 2026. The proposal made clear that climate research is a target. A budget fact sheet entitled *Cuts to Woke Programs* touted the elimination of awards and grants that it alleges were "irresponsibly dedicating funds to climate radicalism and Green New Deal Causes" and directing money to "green energy initiatives."[127] It also celebrated a proposed cut of $5.2 billion from the NSF, which it argued has funded "climate change alarmism."[128] It boasted that the "NSF no longer funds speculative research on impacts from extreme climate scenarios."[129] The National Center for Atmospheric Research, established by the NSF in 1960 to study the Earth's atmosphere and other planetary systems,[130] would see its budget slashed by 40%.[131]

Another fact sheet, *Ending the Green New Scam*, announced that "President Trump is committed to eliminating funding for the globalist climate agenda while unleashing American energy production."[132] As noted above, the budget proposal would cut $2.5 billion from the DOE's Energy Efficiency and Renewable Energy program,[133] which the fact sheet alleged "funneled billions of taxpayer dollars into unreliable energy and [electric vehicles] to advance the destructive 'Green New Deal' agenda" and produced "outlandish regulations that drive up costs for American families, like banning gas stoves and incandescent light bulbs."[134] The

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125. Id. (internal quotation marks omitted) (quoting an NSF policy).

126. Dan Gearino, Proposed Cuts to Energy and Environment Programs in Trump's Budget Worry Advocates and Elected Officials, Inside Climate News (May 5, 2025), https://insideclimatenews.org/news/05052025/trump-budget-worry-energy-environment-advocates/ [https://perma.cc/SM4L-9ETS].

127. White House, Cuts to Woke Programs (2025), https://www.whitehouse.gov/wp-content/uploads/2025/05/Cuts-to-Woke-Programs-Fact-Sheet.pdf [https://perma.cc/3E2Q-WEYJ].

128. Id.

129. Id.

130. History, U.S. Nat'l Sci. Found., https://www.nsf.gov/about/history [https://perma.cc/7L3L-Q9X6] (last visited Sep. 12, 2025); see also History: Meeting Challenges With Creativity, Nat'l Ctr. Atmospheric Rsch., https://ncar.ucar.edu/who-we-are/history [https://perma.cc/M9MN-NR9R] (last visited Sep. 12, 2025).

131. Sam Brasch, Trump's Latest Budget Proposal Could Gut Climate and Weather Research in Colorado, CPR News (June 12, 2025), https://www.cpr.org/2025/06/12/trump-budget-proposal-impact-colorado-climate-weather-research/ [https://perma.cc/SJ8J-BFMN].

132. White House, Ending the Green New Scam (2025), https://www.whitehouse.gov/wp-content/uploads/2025/05/Ending-the-Green-New-Scam-Fact-Sheet.pdf [https://perma.cc/AQ2J-EFUL] [hereinafter White House, Ending the Green New Scam].

133. See supra text accompanying note 121.

134. White House, Ending the Green New Scam, supra note 132. In fact, gas stoves were never banned. Austin Williams, Gas Stoves Will Likely Not Be Banned in the US Anytime Soon, Live NOW Fox (Mar. 6, 2024), https://www.livenowfox.com/news/gas-stoves-will-likely-not-be-banned-in-the-us-anytime-soon [https://perma.cc/5KDA-WC8Q].

budget would also reduce funding for the Advanced Research Projects Agency-Energy and noted that the Agency will "refocus its research on technologies that produce reliable, domestic power, while eliminating funding for technologies favored by the globalist climate agenda."[135]

The Administration has also dismissed scientists working on the National Climate Assessment (NCA), a congressionally mandated report "seen by experts as the definitive body of research about how global warming is transforming the country."[136] The Global Change Research Act of 1990 established an interagency Committee on Earth and Environmental Sciences.[137] The Act tasked the Committee with creating a research plan to study global change and its effects on the natural environment and human systems and producing a report at least every four years summarizing its findings.[138] The result is the NCA, "the most trustworthy and comprehensive source of information about how global warming affects the United States," which combines material from fifteen federal agencies and includes information about sea level rise, rainfall, and wildfires.[139]

In April 2025, the Administration dismissed all of the authors of the NCA and terminated the majority of the program's staff and contractors.[140] In June, the Administration eliminated the federal website that had hosted previous iterations of the NCA, but NASA promised that it would continue to make the reports available on its own website.[141] In July, however, NASA

Efficiency standards required by Congress and set by the DOE did result in a phaseout of incandescent light bulbs in favor of more energy-efficient LED bulbs. Vivien Bui, Debunking Myths About Phasing Out the Incandescent Lightbulb, U.S. Dep't Energy: Blog (Aug. 11, 2023), https://www.energy.gov/articles/debunking-myths-about-phasing-out-incandescent-lightbulb [https://perma.cc/3EY9-BVNJ].

135. White House, Ending the Green New Scam, supra note 132.

136. Scott Waldman, Trump Dismisses Scientists Writing the National Climate Assessment, E&E News: Climatewire (Apr. 29, 2025), https://subscriber.politicopro.com/article/eenews/2025/04/29/trump-dismisses-scientists-writing-the-national-climate-assessment-00314494 (on file with the *Columbia Law Review*).

137. See Global Change Research Act of 1990, Pub. L. No. 101-606, § 102, 104 Stat. 3096, 3097 (codified at 15 U.S.C. § 2932 (2018)).

138. Id. § 106.

139. Rebecca Hersher, White House Dismisses Authors of Major Climate Report, NPR (Apr. 29, 2025), https://www.npr.org/2025/04/29/nx-s1-5380816/climate-assessment-authors-released [https://perma.cc/X345-PRZK]. For more information about the agencies involved, see About USGCRP, U.S. Glob. Change Rsch. Program, https://www.globalchange.gov/about-us [https://perma.cc/NC9W-BCZW] (last visited Apr. 17, 2025).

140. Beth Gibbons, Opinion, Trump Gutted the National Climate Assessment. America Will Suffer as a Result., The Hill (June 11, 2025), https://thehill.com/opinion/energy-environment/5343540-trump-gutted-the-national-climate-assessment-america-will-suffer-the-consequences/ (on file with the *Columbia Law Review*).

141. Rebecca Hersher, The White House Took Down the Nation's Top Climate Report. You Can Still Find It Here, NPR (July 1, 2025), https://www.npr.org/2025/07/01/nx-s1-5453501/national-climate-assessment-nca5-archive-report [https://perma.cc/KV8W-X4WS].

declined to do so, arguing that it had "no legal obligations to host" the information.[142]

More broadly, the Administration has censored climate-related communications. Information about climate change has been removed from multiple agency websites.[143] Contract employees who work on Climate.gov, NOAA's climate information portal, have been told that their positions are being eliminated.[144] The website has long been a source of public information about climate change and its impacts. According to its mission statement, it "provides timely and authoritative scientific data and information about climate science, adaptation, and mitigation."[145] Its authority stems from several federal statutes directing federal agencies to collect and analyze climate data as well as to produce information for policymakers.[146] NOAA has also removed a website listing climate and weather disasters since 1980 that cost more than one billion dollars to create and maintain.[147]

Scientists have decried this Administration's moves as "an unprecedented assault on humanity's understanding of how global warming is transforming the planet."[148] One professor likened it to "losing your eyesight."[149] The undermining of administrative capacity is especially worrisome when we consider the role government plays in producing the basic science and data that support policy action in areas like climate change and energy. Since at least World War II, the federal government has played a key role in providing or supporting the kinds of basic research

142. Kate Yoder, Why the Federal Government Is Making Climate Data Disappear, Grist (July 14, 2025), https://grist.org/language/trump-administration-climate-data-disappear-national-climate-assessment/ [https://perma.cc/S73H-FTCK] (internal quotation marks omitted) (quoting a NASA spokesperson).

143. Oliver Milman, Scientists Brace 'for the Worst' as Trump Purges Climate Mentions From Websites, The Guardian (Feb. 4, 2025), https://www.theguardian.com/us-news/2025/feb/04/trump-climate-change-federal-websites [https://perma.cc/JV8E-7F6E].

144. Daniel Cusick, NOAA's Climate Information Portal to Go Silent, E&E News: Greenwire (June 18, 2025), https://www.eenews.net/articles/noaas-climate-information-portal-to-go-silent/ (on file with the *Columbia Law Review*).

145. About NOAA Climate.gov, Climate.gov, https://www.climate.gov/about [https://perma.cc/V2R7-N9DB] (last visited Sep. 12, 2025).

146. Id.

147. Cusick, supra note 144.

148. Scott Waldman, How Trump's Assault on Science Is Blinding America to Climate Change, E&E News: Climatewire (June 16, 2025), https://www.eenews.net/articles/how-trumps-assault-on-science-is-blinding-america-to-climate-change/ [https://perma.cc/5733-TWBC].

149. See Saul Elbein, Trump Cuts to NOAA, NASA 'Blinding' Farmers to Risks, Scientists Warn, The Hill (June 18, 2025), https://thehill.com/policy/equilibrium-sustainability/5357564-trump-cuts-noaa-nasa-farmers-climate-change-food-supply/ (on file with the *Columbia Law Review*) (internal quotation marks omitted) (quoting Jonathan Martin, Professor, Univ. of Wisc.).

necessary to sustain a thriving modern democracy.[150] The government produces research that private sector actors do not have the financial incentive to pursue on their own.[151] Work by the DOE's National Laboratories, the NIH, the Agricultural Research Service, the NSF, and many other government agencies supports projects across the economy.[152]

Congress has committed agencies to the job of research and information provision, and nearly 80% of Americans consider government investments in scientific research worthwhile.[153] As this Part has suggested, however, a determined chief executive can stall and even destroy many of those programs by undermining agency capacity either wholesale or in particular areas. The government may also become a source of *mis*information. In a 2024 article, Professor Janet Freilich documented cases of government institutions publishing inaccurate or misleading information.[154] These examples were largely cases of the government failing to vet information submitted by third parties.[155] But intentional misrepresentation, or at least reckless disregard for the truth, is also a risk. In July 2025, the DOE published a 150-page report evaluating the impact of greenhouse gases on the U.S. climate.[156] A pending lawsuit alleges that the Secretary of Energy violated the Federal Advisory Committee Act by

150. See, e.g., Donald E. Stokes, Pasteur's Quadrant: Basic Science and Technological Innovation 2–3 (1997) (describing the establishment of national research programs).

151. See Rebecca Mandt, Kushal Seetharam & Chung Hon Michael Cheng, Federal R&D Funding: The Bedrock of National Innovation, 1 MIT Sci. Pol'y Rev. 44, 45 (2020) (arguing that federal science addresses market failures of private sector research and development and catalyzes innovation).

152. Of course, the government cannot and should not be the *only* source of information. As discussed in greater detail below, universities, the private sector, and civil society organizations are all crucial wellsprings of knowledge. Indeed, the private sector is a frequent partner in government knowledge-generation efforts. Sometimes academic, industry, or nonprofit partners take the lead, supported by government resources. In other cases, the government brings in private-sector individuals as advisors to support its own work. See, e.g., Sheila Jasanoff, The Fifth Branch: Scientific Advisers as Policymakers 1 (1990) (describing government scientific advisory committees as "a flexible, low-cost means for government officials to consult with knowledgeable and up-to-date practitioners in relevant scientific and technical fields").

153. Brian Kennedy & Alec Tyson, Pew Rsch. Ctr., Americans' Trust in Scientists, Positive Views of Science Continue to Decline 16 (2023), https://www.pewresearch.org/wp-content/uploads/sites/20/2023/11/PS_2023.11.14_trust-in-scientists_REPORT.pdf [https://perma.cc/BV5A-B6W9].

154. See Janet Freilich, Government Misinformation Platforms, 172 U. Pa. L. Rev. 1537, 1552–62 (2024) (discussing examples of unvetted information disseminated by the EPA, NIH, FDA, and USPTO).

155. Id. at 1540–41.

156. Climate Working Grp., U.S. Dep't of Energy, A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate (2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf [https://perma.cc/YP7E-NGES].

hand-picking climate skeptics to compile the report in secret,[157] and a group of eighty-five scientists issued a joint rebuttal to the report identifying errors and misrepresentations.[158] The recent announcement that the Trump Administration will be rewriting past editions of the NCA raises similar concerns about misinformation.[159]

III. ADMINISTRATION AND DISTRUST

Spence rightly identifies one of the biggest barriers to the energy transition as "voters in the thrall of misinformation and frustration."[160] For that reason, the project of unifying around trusted sources of information could not be more urgent. This Part considers possible responses to the decline of government as a source of trusted information. These responses are very different in form from the solutions proposed by Spence in *Climate of Contempt*. Spence's remedy is to build a coalition, conversation by conversation, through more positive, open interactions with those with whom we disagree.[161] In other words, he wants to unravel the deepest knots of our social dysfunction. This is commendable. But given the ways in which the policy and governance landscapes have shifted since January 2025, it feels insufficient. Spence's prescriptions must be paired with a more active defense of government institutions and their knowledge-production functions. They must be accompanied by the rehabilitation of trust in those institutions and functions. And they must be supplemented, at least in the short term, by the creation of alternatives to government knowledge production that can continue the important work of research and data collection.

To protect federal knowledge production, we need to understand it more clearly. Legal scholars have only just begun to explore the information-production function of government agencies in a comprehensive way. Scholars have examined individual statutes, like the Freedom of Information Act, that grant public access to agency documents.[162] They have also

157. Complaint for Declaratory, Injunctive, and Mandamus Relief at 2–4, Env't Def. Fund, Inc. v. Wright, No. 1:25-cv-12249-WGY (D. Mass. filed Aug. 12, 2025).

158. Julia Simon, Dozens of Scientists Find Errors in a New Energy Department Climate Report, NPR (Sep. 2, 2025), https://www.npr.org/2025/09/02/nx-s1-5521384/energy-report-scientists-climate-change [https://perma.cc/6XFT-QC4S].

159. See Ella Nilsen, Energy Chief Suggests Trump Administration Is Altering Previously Published Climate Reports, CNN (Aug. 7, 2025), https://www.cnn.com/2025/08/07/climate/wright-national-climate-assessments-updating [https://perma.cc/ZKZ9-HEQ2] (stating that the Trump Administration "will come out with updated reports . . . and with comments on those reports" (internal quotation marks omitted) (quoting Chris Wright, U.S. Sec'y of Energy)).

160. Spence, Climate of Contempt, supra note 9, at 2.

161. Id. at 201–29.

162. See, e.g., Margaret B. Kwoka, FOIA, Inc., 65 Duke L.J. 1361, 1363–64 (2016) (identifying government transparency as a public good necessary for a robust democracy and pointing to ways in which FOIA's implementation has been at odds with this goal).

explored the tension between agency expertise and political control.[163] This includes work on the legal safeguards of government expertise and the fate of that expertise in the face of expansive conceptions of presidential power.[164]

But a variety of important questions remain to be explored in more depth. These include how what Professor Daniel Walters has recently named "communicative administration"[165] fits within the existing framework of federal administrative law. Walters emphasizes the importance of communicative administration, which he describes as "part of the essential business of the administrative state."[166] Information generation, Walters argues, is not only needed to support agencies' regulatory functions[167] but also to support some agencies' work as "public knowledge producers."[168]

If and when a coalition emerges that can drive the kinds of regulatory responses to climate change that Spence envisions, those responses will require factual grounding. Moreover, knowledge produced by the federal government, if broadly trusted, can ameliorate the problem of partisanship and siloing that Spence identifies. Walters suggests that agency-produced information "could be used to counterbalance private communication and thereby serve as a partial solution to one of the most pressing problems of our time—the fraying of the epistemic conditions necessary for democracy to function."[169] For both of these reasons, it is important to safeguard government knowledge production when possible, and, when it is not, to develop substitutes.

A. *Protecting Federal Knowledge Production*

It may still be possible to defend the federal government's climate and energy information-production functions either through Congress or through the courts. Thus far, however, congressional Republicans, who

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163. See, e.g., Thomas McGarity & Wendy Wagner, U.S. Agency Experts in Shackles: The Quest for Information, 35 J. Env't L. 65, 67 (2023) (suggesting that more work should be done on establishing the line between legitimate and illegitimate constraints on agency expertise).

164. See, e.g., Wendy E. Wagner, A Place for Agency Expertise: Reconciling Agency Expertise With Presidential Power, 115 Colum. L. Rev. 2019, 2064–68 (2015) (proposing constraints on White House interference with agency science). On theories of strong presidentialism, see, e.g., Gary Lawson, Command and Control: Operationalizing the Unitary Executive, 92 Fordham L. Rev. 441, 444–48 (2023).

165. Daniel E. Walters, Communicative Administration: The Administrative State Beyond Legal Administration, 78 Stan. L. Rev. (forthcoming 2026) (manuscript at 33), https://ssrn.com/abstract=5376707 [https://perma.cc/8HJT-UBHQ] [hereinafter Walters, Communicative Administration].

166. Id. at 15.

167. Id. at 12–13.

168. Id. at 14 (internal quotation marks omitted) (quoting Heidi Kitrosser, Protecting Public Knowledge Producers, 4 J. Free Speech L. 473, 477–78 (2024)).

169. Id. at 42.

hold majorities in both chambers, have proved willing partners in the President's unraveling of administration.[170] And while some federal courts have granted injunctions halting civil servant firings,[171] funding freezes,[172] and the shuttering of agencies,[173] the Supreme Court has largely allowed these efforts to proceed or has made pausing them more difficult.[174] As a result, the federal government will look very different in four years than it does today. There will be fewer civil servants,[175] and some knowledge-production programs—even those authorized by Congress—will be no more.[176]

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170. See David A. Graham, A Congress that Votes Yes and Hopes No, The Atlantic: Atl. Daily (July 18, 2025), https://www.theatlantic.com/newsletters/archive/2025/07/congress-vote-trump-administration/683605/ (on file with the *Columbia Law Review*) (noting that, for several weeks in July 2025, "Republican members of Congress" appeared to be "wringing their hands furiously over bills under consideration, criticizing the White House's legislative priorities . . . and then voting for them" (alteration in original)).

171. See, e.g., Am. Fed'n of Gov't Emps. v. Trump, 784 F. Supp. 3d 1316, 1360 (N.D. Cal.) (issuing a preliminary injunction to pause large-scale reductions in force and reorganizations from Executive Order 14,210), vacated and remanded, 155 F.4th 1082 (9th Cir. 2025); Maryland v. U.S. Dep't of Agric., 770 F. Supp. 3d 779, 820–22 (D. Md. 2025) (granting a temporary restraining order preventing the termination of probationary employees). The temporary restraining order was converted into a preliminary injunction, which was later vacated. Maryland v. U.S. Dep't of Agric., 777 F. Supp. 3d 432, 493 (D. Md.), vacated and remanded, 151 F.4th 197 (4th Cir. 2025).

172. See, e.g., AIDS Vaccine Advoc. Coal. v. U.S. Dep't of State, Nos. 25-00400 (AHA), 25-00402 (AHA), 2025 WL 2537200, at *19–20 (D.D.C. Sep. 3), stayed pending appeal, 222 L. Ed. 2d 1235 (2025) (mem.); Climate United Fund v. Citibank, 778 F. Supp. 3d 90, 99 (D.D.C. 2025).

173. See, e.g., Widakuswara v. Lake, 779 F. Supp. 3d 10, 39–40 (D.D.C. 2025) (granting a preliminary injunction requiring continued staffing, grant funding, and programming by Voice of America).

174. See, e.g., *AIDS Vaccine Advoc. Coal.*, 222 L. Ed. 2d at 1235 (granting a stay of a district court order directing the spending of over ten billion dollars in appropriated aid funding); Trump v. Am. Fed'n of Gov't Emps., 145 S. Ct. 2635, 2635 (2025) (mem.) (allowing federal agency layoffs to proceed pending resolution of the case); Trump v. CASA, Inc., 145 S. Ct. 2540, 2562–63 (2025) (restricting the use of universal injunctions); Off. of Pers. Mgmt. v. Am. Fed'n of Gov't Emps., 145 S. Ct. 1914, 1914 (2025) (mem.) (staying a district court injunction ordering reinstatement of over sixteen thousand federal employees).

175. See Eileen Sullivan, Year Will End With 300,000 Fewer Federal Workers, Trump Official Says, N.Y. Times (Aug. 22, 2025), https://www.nytimes.com/2025/08/22/us/politics/trump-federal-workers.html (on file with the *Columbia Law Review*).

176. See, e.g., Julian E. Barnes & Helene Cooper, Gabbard Ends Intelligence Report on Future Threats to U.S., N.Y. Times (Sep. 26, 2025), https://www.nytimes.com/2025/09/26/us/politics/gabbard-intelligence-report-cancellation.html (on file with the *Columbia Law Review*) (discussing former officials' conclusions that warnings on climate change had become politically inconvenient for the administration); Scott Waldman, Why Trump Axed the Global Change Research Program, E&E News: Climatewire (Apr. 10, 2025), https://www.eenews.net/articles/why-trump-axed-the-global-change-research-program/ (on file with the *Columbia Law Review*) (describing the "dismantling" of the agency responsible for issuing the NCA, a statutorily mandated report).

What can be done? Any solution will rely to some extent on legislative action, which assumes a Congress willing to defend existing law and its own legislative prerogative.[177] The traditional legislative approach to defending agency capacity has been to insulate government experts in a way that shields them from partisan attack.[178] That approach looks increasingly challenging in the wake of the Supreme Court's opinion in *Seila Law v. CFPB*[179] and its emergency docket decision in *Trump v. Wilcox*.[180] Contrary to the practice of past administrations, the President has also sought to erase the distinction between executive and independent agencies by extending presidential directives to both types.[181]

Beyond traditional methods of insulation, there are several possibilities worth considering. The first is to enhance the transparency of government data and science to allow for public oversight. Administrative law already requires some transparency.[182] As trust in government erodes further, however, more measures will be needed to reassure the public of the trustworthiness of the data and research it produces. Courts currently require agencies to produce the data used to support informal rulemaking,[183] but that requirement is not explicit in the Administrative Procedure Act,[184] and it does not apply when the agency makes policy in

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177. There is some indication that Congress could be open to such an approach. Currently, senators from both parties are attempting to add safeguards to next year's spending bills to restrict presidential discretion. Carl Hulse, Senate Adds Guardrails in an Effort to Force Trump to Obey Spending Bills, N.Y. Times (Aug. 20, 2025), https://www.nytimes.com/2025/08/20/us/politics/senate-spending-guardrails-trump.html (on file with the *Columbia Law Review*).

178. See, e.g., Rachel E. Barkow, Insulating Agencies: Avoiding Capture Through Institutional Design, 89 Tex. L. Rev. 15, 19–21 (2010) (explaining how insulation promotes expertise and nonpartisan decisionmaking within agencies).

179. 140 S. Ct. 2183, 2211 (2020) (narrowing the exception from plenary removal by the President for the heads of multimember, independent commissions).

180. 145 S. Ct. 1415, 1416–17 (2025) (lifting a lower court stay and opining, without deciding, that for-cause removal protections for NLRB and Merit Systems Protection Board members were likely unconstitutional).

181. See Exec. Order No. 14,215, 90 Fed. Reg. 10,447, 10,447 (Feb. 18, 2025) (declaring that independent regulatory agencies' actions are subject to review by the Office of Information and Regulatory Affairs).

182. See Boyd, De-Risking, supra note 74, at 166 ("[T]he principal virtues of modern American administrative law—transparency, participation, and accountability—all reflect a commitment to sound knowledge as a basis for legitimacy.").

183. See United States v. N.S. Food Prods. Corp., 568 F.2d 240, 253 (2d Cir. 1977) (holding that a regulation was arbitrarily promulgated because the Agency had initially failed to provide the data that it used to develop the regulation).

184. See 5 U.S.C. § 553(c) (2018) ("After consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose."); see also Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 539–48 (1978) (finding that courts cannot require agencies undertaking informal rulemaking to employ procedures beyond the minimum statutory requirements without "substantial justification for doing otherwise" (internal quotation marks omitted) (quoting Fed. Power Comm'n v. Transcon. Gas Pipe Line Corp., 423 U.S. 326, 333 (1976))).

individual adjudications[185] or when it issues guidance.[186] Congress could amend the Administrative Procedure Act to specify that staff reports and the materials they rely on are to be made public, for example, so that it is clear when agency actions have been modified by political principals.

Another option is for Congress to require, by statute, strong internal cultures of data and scientific integrity within agencies. Some agencies have adopted such policies voluntarily. One example is the policy adopted by the EPA in 2012 and updated in early January 2025. The updated policy reaffirmed the role of the Agency's internal Scientific Integrity Committee in promoting and maintaining a strong culture of independent science at the Agency.[187] It also prohibited Agency leadership from suggesting "scientifically unjustified changes to scientific content" and required that the Agency's scientific activities be conducted "independent of any predetermined or desired outcome," "[e]xpect the independent validation of . . . methods and models," lean on peer review of such methods and models, and ensure independent assessment of Agency science when appropriate.[188] On August 21, 2025, EPA Administrator Lee Zeldin revoked the updated policy, although the Agency's 2012 policy remains in place.[189] By requiring such policies by statute, rather than relying on agencies to implement them voluntarily, Congress could instill greater trust in agency science production.[190]

Finally, it might be necessary for the government to partner with more trusted entities in order to gain public trust. Professional organizations

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185. See 5 U.S.C. § 555; Pension Benefit Guar. Corp. v. LTV Corp., 496 U.S. 633, 653–55 (1990) (extending to informal adjudication *Vermont Yankee*'s general prohibition on courts imposing additional procedural requirements on agency proceedings beyond those required by statute).

186. See 5 U.S.C. § 553(b)(A).

187. EPA, Scientific Integrity Policy 10–11 (2025), https://www.epa.gov/system/files/documents/2025-01/us-epa-scientific-integrity-policy.pdf [https://perma.cc/6YCC-KZ3K] (reaffirming the EPA's commitment "to promot[ing] a culture of scientific integrity across the agency").

188. Id. at 11–12.

189. Robin Bravender & Sean Reilly, EPA Deletes Biden-Era Scientific Integrity Policy, E&E News: Greenwire (Aug. 21, 2025), https://www.eenews.net/articles/epa-deletes-biden-era-scientific-integrity-policy/ (on file with the *Columbia Law Review*). Zeldin was responding to an executive order from President Trump that directed agencies to return to scientific integrity policies that existed as of January 19, 2021, the final day of President Trump's first term. Id.

190. Of course, implementation matters. In May 2020, the EPA's Office of Inspector General described several areas in which adherence to the policy could be improved. See Off. of Inspector Gen., EPA, Report No. 20-P-0173, Improving EPA Research Programs: Further Efforts Needed to Uphold Scientific Integrity Policy at EPA 20 (2020), https://www.epaoig.gov/sites/default/files/2020-05/documents/_epaoig_20200520-20-p-0173.pdf [https://perma.cc/6EZE-YC3U] (identifying areas for potential improvements to the policy's implementation, including completing previously planned implementation activities, improving training and transparency, enhancing adjudication procedures, clarifying committee members' roles, and bettering tracking and communication around adjudication outcomes).

without perceived political commitments can be helpful partners in this regard. While the federal courts have interpreted the Constitution as prohibiting delegation of legislative functions to private entities,[191] such entities can still serve a variety of advisory and verification functions provided that the agency retains ultimate authority to act. Private entities' involvement in producing information—and their public endorsement of the results of government action based on that information—might increase public confidence.

B. *Considering Substitutes*

Congress, however, may choose not to reinforce government knowledge production by statute. In that case, and in the face of the Trump Administration's determined assault on both the administrative state in general and federal climate science and clean energy research in particular, it may also be time to consider more seriously how other entities could compensate, at least in part, for the federal government's abdication of its role in these areas.

Global coalitions like the UN's IPCC will continue their important work assessing climate science. Of course, the United States has historically been a major funder of these organizations, and the Trump Administration has already cut off technical support for the IPCC.[192] Other nations or private institutions may step up to provide additional funding, however, as the Rockefeller Foundation and Wellcome have recently done for the World Health Organization–World Meteorological Organization's Climate and Health Joint Programme.[193] Because the IPCC's annual budget is not large[194]—in part because its contributors volunteer their time—alternative funding from other nations or private sources can replace American support.[195] Regional partnerships and individual nations also have programs to track climate conditions. These include the European Union's Copernicus program, which monitors planetary

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191. See Fed. Commc'ns Comm'n v. Consumers' Rsch., 145 S. Ct. 2482, 2511 (2025) (explaining that the government may rely on advice and assistance from private actors so long as the relevant agency retains decisionmaking power).

192. Paul Voosen, NASA Cuts Off International Climate Science Support, Science (Feb. 24, 2025), https://www.science.org/content/article/nasa-cuts-international-climate-science-support [https://perma.cc/5WPX-YK8J].

193. WHO-WMO Climate and Health Programme Is Strengthened, World Meteorol. Org. (May 21, 2025), https://wmo.int/media/news/who-wmo-climate-and-health-programme-strengthened [https://perma.cc/Z5ER-T5RA].

194. See Intergovernmental Panel on Climate Change, IPCC Trust Fund Programme and Budget, at 5 (2025), https://apps.ipcc.ch/eventmanager/documents/88/180220250655-Doc.%202,%20Rev.1%20-%20IPCC%20Programme%20and%20Budget.pdf [https://perma.cc/5K3P-CLS3] (disclosing expenditures of 5,505,000 Swiss Francs, or approximately 6.8 million U.S. dollars, for 2024).

195. Press Release, Intergovernmental Panel on Climate Change, IPCC Opens First Virtual Session to Consider Budget (Dec. 7, 2020), https://www.ipcc.ch/2020/12/07/ipcc-53-opening [https://perma.cc/8ABZ-CMZM].

conditions through satellites and other technologies,[196] as well as the Japan Meteorological Agency.[197]

Within the United States, individual states are monitoring climate change and conducting research on how to mitigate it, including research on the energy transition. Large states like California and New York already have well-developed programs. The California Energy Commission invests in research to "build[] the state's clean energy future."[198] Its Office of Environmental Health Hazard Assessment also publishes *Indicators of Climate Change in California*, a report tracking both the causes of climate change and its impacts on the state and its residents.[199] Similarly, New York partners with nongovernmental organizations and universities to produce a state climate impacts assessment.[200]

Professional organizations are also stepping up. The American Geophysical Union and the American Meteorological Society are creating a special collection of climate-focused research in light of the firing of the Sixth National Climate Assessment's authors and staff.[201] Another example worth noting, albeit one outside of the climate and energy domain, is the American Academy of Pediatrics' issuance of alternative vaccination recommendations after the CDC failed to recommend COVID-19 boosters for healthy children.[202]

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196. About Copernicus, Copernicus, https://www.copernicus.eu/en/about-copernicus [https://perma.cc/K9ZJ-NZYB] (last visited Sep. 29, 2025).

197. Mari Yamaguchi, Japan Launches a Climate Change Monitoring Satellite on Mainstay H2A Rocket's Last Flight, AP News, https://apnews.com/article/japan-space-rocket-satellite-carbon-climate-f5a2cdc4e8e0611288c3e72b9e965c1b [https://perma.cc/WE63-CCRQ] (last updated June 29, 2025); see also Japan Meteorol. Agency, Climate Change Monitoring Report 2023 (2024), https://www.jma.go.jp/jma/en/NMHS/ccmr/ccmr2023.pdf [https://perma.cc/HNX6-YJ8B].

198. Energy Research and Development Division, Cal. Energy Comm'n, https://www.energy.ca.gov/about/divisions-and-offices/energy-research-and-development-division [https://perma.cc/7ZK3-CVKX] (last visited Sep. 12, 2025).

199. Carmen Milanes, Tamara Kadir, Bennett Lock, Gwen Miller, Laurie Monserrat & Karen Randles, Cal. EPA, Indicators of Climate Change in California (4th ed. 2022), https://oehha.ca.gov/sites/default/files/media/downloads/climate-change/document/2022caindicatorsreport.pdf (on file with the *Columbia Law Review*).

200. New York State Climate Impacts Assessment: Understanding and Preparing for Our Changing Climate, N.Y. St. Climate Impacts Assessment, https://nysclimateimpacts.org [https://perma.cc/5G2L-4TZG] (last visited Sep. 12, 2025).

201. Press Release, Am. Geophysical Union & Am. Meteorol. Soc'y, AGU and AMS Join Forces on Special Collection to Maintain Momentum of Research Supporting the U.S. National Climate Assessment (May 2, 2025), https://news.agu.org/press-release/agu-and-ams-join-forces-on-special-collection-to-maintain-momentum-of-research-supporting-the-u-s-national-climate-assessment [https://perma.cc/HQR4-MM5D]. The organizations note, however, that "[t]he new special collection does not replace the NCA." Id.

202. Am. Acad. of Pediatrics, Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, https://downloads.aap.org/AAP/PDF/AAP-Immunization-Schedule.pdf [https://perma.cc/8W52-LVZD] (last updated Nov. 21, 2025); see also Alice Park, CDC Stops Recommending COVID-19 Vaccines for Pregnant Women

Universities will continue to be an important source of research on climate and the energy transition. But climate research is one of the areas that the Trump Administration has targeted for grant termination. For example, the Administration has cut nearly four million dollars in federal funding for climate change research grants at Princeton University,[203] citing the purported promotion of "'exaggerated and implausible climate threats' and increased 'climate anxiety.'"[204] Climate funding may also be a casualty of more general funding cuts to universities based on the Administration's disagreements with their policies, politics, or actions, as in the case of the cuts to Columbia University, the University of Pennsylvania, and Harvard University.[205]

Nongovernmental organizations will also continue to provide important data on climate and the energy transition. The World Resources Institute collects climate datasets and makes them available for others to access and use,[206] as does the Data Foundation's Climate Data Collaborative.[207] Another example is Climate TRACE, a platform built by a coalition of not-for-profit actors to track greenhouse gas emissions across the globe.[208]

Ultimately, it is difficult to imagine that these efforts—even in combination—can replace federal government programs, at least in the short term.[209] Nevertheless, they can provide a backstop while other strategies to restore government knowledge production proceed.

C. *Rebuilding Trust*

In the longer term, maintaining—and, in some cases, rebuilding—trust in government knowledge production is key to the larger project of restoring trust in government and in one another. In *Climate of Contempt*'s

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and Children, Time, https://time.com/7288915/cdc-covid-19-vaccines-pregnant-women-children/ (on file with the *Columbia Law Review*) (last updated May 27, 2025).

203. Press Release, U.S. Dep't of Com., Ending Cooperative Agreements' Funding to Princeton University (Apr. 8, 2025), https://www.commerce.gov/news/press-releases/2025/04/ending-cooperative-agreements-funding-princeton-university (on file with the *Columbia Law Review*).

204. Brad Plumer & Austyn Gaffney, Trump Administration Cuts Research Funding, Claiming It Creates 'Climate Anxiety', N.Y. Times (Apr. 9, 2025), https://www.nytimes.com/2025/04/09/climate/trump-noaa-princeton-climate-research.html (on file with the *Columbia Law Review*) (quoting Press Release, U.S. Dep't of Com., supra note 203).

205. Id.

206. Data, World Res. Inst., https://www.wri.org/data (on file with the *Columbia Law Review*) (last visited Oct. 7, 2025).

207. Climate Data Collaborative, Data Found., https://datafoundation.org/pages/Climate-Data-Collaborative [https://perma.cc/94SJ-89MX] (last visited Sep. 12, 2025).

208. Climate TRACE, https://climatetrace.org/ [https://perma.cc/ZPG7-EA45] (last visited Sep. 12, 2025).

209. See, e.g., Walters, Communicative Administration, supra note 165, at 15–25 (explaining the unique role federal agency communications play in producing knowledge and influencing public perception).

final chapter, Spence argues that the long-term solution to partisanship and tribalism is to walk away from the noise and relearn how to speak to one another about what we want from our government.[210] After that, we must figure out how to trust our government representatives to provide it.

"Americans don't trust one another, and they don't trust the government," wrote Professor Jedediah Britton-Purdy in the *Atlantic* last year.[211] Trust is essential to knowledge, Britton-Purdy observed, since most of what we know comes not from our own experiences but from what we accept from trusted sources.[212] Trust is also difficult, especially when it requires us to live "with sharp moral disagreement."[213] But while we need not "love one another," he concedes, we must "get along enough to wrestle with climate change" and other challenges "together."[214]

One way to understand the possibilities for democratic decision-making in the face of persistent disagreement is through the lens of democratic agonism. As Professor Walters wrote in an article about understanding the democracy of administration, agonistic accounts portray stakeholders in a democracy as engaged in enduring struggles over policy.[215] Even when they lose, stakeholders are able to maintain respect for their adversaries and remain engaged in the process because of the chance that they will prevail another day.[216] Yet this process, too, requires trust: in other stakeholders and in the process of governance itself.

All of this seems consonant with Spence's account. His last chapter is, after all, entitled "Hope and Conversation."[217] It is clear that Spence would embrace Britton-Purdy's proposal that institutions from government agencies to universities make efforts to throw people with different perspectives together.[218] He would also likely agree that the work required to regain trust must be individual as well as collective. "Each of us," Britton-Purdy exhorts, "can also develop practices to modulate our own balance

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210. Spence, Climate of Contempt, supra note 9, at 238–40.

211. Jedediah Britton-Purdy, We've Been Thinking About America's Trust Collapse All Wrong, The Atlantic (Jan. 8, 2024), https://www.theatlantic.com/ideas/archive/2024/01/trust-democracy-liberal-government/677035/ (on file with the *Columbia Law Review*).

212. See id. ("Only through trust can anyone ever know much of anything. Almost all of what anyone treats as knowledge is not part of their own experience, but the upshot of a social process . . . .").

213. Id.

214. Id.

215. See Daniel E. Walters, The Administrative Agon: A Democratic Theory for a Conflictual Regulatory State, 132 Yale L.J. 1, 47 (2022) [hereinafter Walters, The Administrative Agon] ("Agonistic democratic theory . . . rejects the unifying assumption of conventional democratic theory that conflict can or should be extinguished in the lawmaking process.").

216. See id. at 54 (arguing that, by recognizing the inevitability of conflict and the possibility of "friendly adversarialism," agonism protects society from "democratic illness").

217. See Spence, Climate of Contempt, supra note 9, at 201.

218. See Britton-Purdy, supra note 211 (describing how government and educational institutions can and should expose people of different backgrounds to each other).

of trust and skepticism, and gently push others to do the same."[219] Similarly, Spence suggests that we engage more frequently with those who hold differing views and that we push ourselves to consider news sources more critically.[220] He would also like us to "try to be humble about what we believe we know and don't know, to resist certainty, and to avoid moral judgment in the absence of deep understanding."[221]

Spence would likely also be sympathetic to some of Walters's institutional interventions to promote democratic agonism, including the proposal that administrative processes accommodate more open regulatory agendas subject to influence by rulemaking petitions, advisory committees, focus groups, and the like.[222] These proceedings create opportunities to engage with our policy adversaries in a way that acknowledges our shared goals and our mutual interdependence.

None of this offers an immediate solution to the climate crisis. Nor can it rebuild the governmental institutions responsible for climate science or clean energy research—at least not overnight. That is why the shorter-term interventions described in earlier sections must be attempted. But if we do not do the longer-term, harder work of reestablishing trust in each other and in our institutions, our government will continue to fail us in the face of existential threats. We, as a public, are capable of transitioning our energy systems to mitigate the worst harms of climate change. The technical capacity is there, as are the legal and policy approaches that will deploy that capacity. But we are standing in our own way.

CONCLUSION

A large majority of the public (including 83% of Republicans) still believes that the federal government has a responsibility to provide things like clean air and water for all Americans.[223] As of May 2020, two-thirds of Americans thought that the federal government was doing too little to confront climate change.[224] In March 2025, the highest number of Americans since polling began in 1997 believed that global warming will

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219. Id.

220. See Spence, Climate of Contempt, supra note 9, at 221, 228, 240.

221. Id. at 207.

222. Walters, The Administrative Agon, supra note 215, at 68.

223. Andrew Daniller, Americans See a Role for the Federal Government in Many Domains, but Some Large Partisan Divisions Persist, Pew Rsch. Ctr. (May 6, 2025), https://www.pewresearch.org/short-reads/2025/05/06/americans-see-a-role-for-the-federal-government-in-many-domains-but-some-large-partisan-divisions-persist/ [https://perma.cc/PER8-AVDB].

224. Alec Tyson & Brian Kennedy, Pew Rsch. Ctr., Two-Thirds of Americans Think Government Should Do More on Climate 4 (2020), https://www.pewresearch.org/wp-content/uploads/sites/20/2020/06/PS_2020.06.23_government-climate_REPORT.pdf [https://perma.cc/D26K-R2PP].

pose a serious threat to them or their way of life in their lifetime.[225] As of May 2025, approximately 64% of registered voters said that developing clean energy should be a high or very high priority for the President and Congress and 74% said that renewable energy use should be increased.[226] As Spence puts it, Americans "want the energy transition, even if its particulars worry them."[227] The challenge is that providing social goods requires a functioning federal bureaucracy that can both generate and act on research.

Climate of Contempt reminds us that law exists as part of a social system. Our inability to act as a nation in the face of an existential threat like climate change, Spence argues, is a product of all-too-human impulses. Spence has faith that we can rise above our worst instincts. Humility and more productive engagement with those with whom we disagree, Spence concludes, can help us to forge a durable climate coalition and chart a path forward.

But policy conversations about whether and how to transition away from fossil fuels depend at least in part on government research on climate science, climate impacts, and new technologies. This research is now under threat in the United States. Tragically, our society seems to have lost sight of the idea of government as a common project. Instead, it has become yet another field of partisan conflict. Reaching a collective understanding of the role that government agencies can and should play in producing, sourcing, and disseminating knowledge—and then ensuring that our laws support and defend that role—is therefore of urgent importance.

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225. Lydia Saad, Record-High 48% Call Global Warming a Serious Threat, Gallup (Apr. 16, 2025), https://news.gallup.com/poll/659387/record-high-call-global-warming-serious-threat.aspx [https://perma.cc/HA3W-8896] (finding that 48% of respondents agreed in March 2025, compared with 25% in 1997). 63% of respondents thought that the effects of global warming had already begun, and 63% were worried about climate change. Id.

226. Anthony Leiserowtiz et al., Yale Program on Climate Change Commc'n & George Mason Univ. Ctr. for Climate Change Commc'n, Climate Change in the American Mind: Politics & Policy, Spring 2025, at 4–5 (2025), https://climatecommunication.gmu.edu/wp-content/uploads/2025/06/climate-change-american-mind-politics-policy-spring-2025_FULL-REPORT.pdf [https://perma.cc/G98R-J382]. For a helpful visualization of the data on public opinion regarding climate change, see Jennifer Marlon et al., Yale Climate Opinion Maps 2024, Yale Program on Climate Change Commc'n (Aug. 28, 2025), https://climatecommunication.yale.edu/visualizations-data/ycom-us/ [https://perma.cc/LTZ5-RQC4].

227. Spence, Climate of Contempt, supra note 9, at 237.