
CHAPTER FOUR

MANDATE VERSUS MOVEMENT: STATE PUBLIC SERVICE COMMISSIONS AND THEIR EVOLVING POWER OVER OUR ENERGY SOURCES

The climate is changing and so must our energy sources. But how do we get there? Who decides when and where to build new power stations across the country? And critically, which resources should power those stations — coal, gas, or the sun? When it comes to the climate crisis, public service commissions (PSCs) are the most important state agencies many people have never heard of.

In 2020, U.S. grids were powered by eighty-eight percent nonrenewable energy and twelve percent renewable energy.¹ In large part, these energy profiles are an amalgamation of the scattered decisions by 201 state public service commissioners across the country.² Although the federal government has asserted authority over certain energy resources, such as nuclear power plants³ and hydroelectric dams,⁴ decisions about how we power the electric grid are primarily left to the states.⁵

The climate crisis must be solved through thoughtful energy solutions. Unfortunately, although states' energy decisions affect the climate, the climate does not always affect states' energy decisions. PSCs are creatures of habit and have developed case law, administrative procedures, and staffing decisions for a century through an economic lens. This narrow focus is due to PSCs' traditional economic mandate to hold in check the monopolistic market power of utility companies and serve as a proxy for real-world competition. Even when given authority to regulate environmental and climate issues, these agencies have neither a road map nor adequate resources to do so. While a few state PSCs

¹ *U.S. Energy Facts Explained*, U.S. ENERGY INFO. ADMIN. (May 14, 2021), <https://www.eia.gov/energyexplained/us-energy-facts> [<https://perma.cc/6HK4-QDL2>].

² PSCs generally have extensive regulatory authority over investor-owned utilities, which distribute power to approximately three-quarters of U.S. homes. See Ari Peskoe, *Unjust, Unreasonable, and Unduly Discriminatory: Electric Utility Rates and the Campaign Against Rooftop Solar*, 11 TEX. J. OIL GAS & ENERGY L. 211, 213 & n.1 (2016); *Public Service Commissioner (State Executive Office)*, BALLOTPEDIA, https://ballotpedia.org/Public_Service_Commissioner [<https://perma.cc/72RH-32WD>] (listing the 201 current PSC commissioners).

³ *About NRC*, U.S. NUCLEAR REGUL. COMM'N (Jan. 25, 2022), <https://www.nrc.gov/about-nrc> [<https://perma.cc/56DS-B3EG>].

⁴ *Hydropower*, FED. ENERGY REGUL. COMM'N (Dec. 8, 2021), <https://www.ferc.gov/industries-data/hydropower> [<https://perma.cc/M58V-Q9XE>].

⁵ Simply speaking, the energy grid can be broken down into three components: generation, long-range transmission, and local distribution. Courts have considered generation of electricity to be a “purely intrastate” process, such that the decisions of whether to build a power plant and what energy source fuels that power plant fall within the purview of a state PSC. *Utah Power & Light Co. v. Pfof*, 286 U.S. 165, 181–82 (1932) (upholding a state tax on the generation of energy as lawful and not barred by the dormant commerce clause).

have successfully embraced their role in the climate solution, they stand as the outliers. Most state PSCs remain entrenched in their traditional economic mandate, refusing to consider the impacts of their energy decisions on the climate and, at times, undermining the will of their electorate.

This Chapter studies the conflict between the historical mandate of PSCs and the modern movement of climate policy and politics, explaining how PSCs continue to resist their role in solving climate change, despite explicit environmental mandates and increasing pressure to act on the climate.⁶ Section A introduces the problem, explaining what and who state PSCs are and why their traditional economic role conflicts with the present climate call to action. Section B studies recent PSC orders and highlights how many PSCs continue to resist any role as an environmental regulator. Finally, section C proposes solutions to this problem. In the short term, states should override the decisionmaking processes of their PSCs by instituting clean energy standards. Although blunt and imperfect policy tools, these standards are effective and necessary. In the long term, states must target the root of the resistance and modernize a century-old administrative bias by providing explicit climate-related directives, workable objectives, and external support from all three branches of government.

A. Understanding the Problem: The Mismatch Between the Historical Mandate of PSCs and the Modern Movement on Climate Change

i. What and Who Are PSCs? — To understand the role of state PSCs, it is helpful to consider the companies they regulate. Utility companies stand as outliers in a national economy fueled predominantly by free-market competition. These government-sanctioned monopolies provide modern-day requirements such as water, electricity, and telecommunications.⁷

⁶ In the past decade, public support for government climate action has nearly doubled and become the majority view, see Cary Funk & Brian Kennedy, *How Americans See Climate Change and the Environment in 7 Charts*, PEW RSCH. CTR. (Apr. 21, 2020), <https://www.pewresearch.org/fact-tank/2020/04/21/how-americans-see-climate-change-and-the-environment-in-7-charts> [<https://perma.cc/KQB6-ZXPZ>], as has public support for alternative sources of energy, see Alec Tyson & Brian Kennedy, *Two-Thirds of Americans Think Government Should Do More on Climate*, PEW RSCH. CTR. (June 23, 2020), <https://www.pewresearch.org/science/2020/06/23/two-thirds-of-americans-think-government-should-do-more-on-climate> [<https://perma.cc/HTL3-33YR>] (“79% of Americans say the priority for the country’s energy supply should be developing alternative sources of energy, such as wind and solar . . .”). Despite the COVID-19 pandemic, this support has not faltered and climate change rivals the economy as a national priority. *Id.*; *As Economic Concerns Recede, Environmental Protection Rises on the Public’s Policy Agenda*, PEW RSCH. CTR. (Feb. 13, 2020), <https://www.pewresearch.org/politics/2020/02/13/as-economic-concerns-recede-environmental-protection-rises-on-the-publics-policy-agenda> [<https://perma.cc/RG38-AY33>].

⁷ See Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 548 (1969). Utility companies once provided other necessities of the day, such as grain storage and ice. See, e.g.,

Electric utility companies are considered “natural monopolies” because the high upfront cost of energy infrastructure makes competition challenging.⁸ Another explanation of why states grant utilities monopoly status is that the alternative is simply too messy and too unjust. If anyone could start their own electric utility company, a few problems would inevitably result. First, competing companies would string up their own sets of wires, leaving a tangled mess of poles and wires on every block. And second, a savvy utility owner would service only densely populated cities rather than expend miles of wires for a single rural customer. In the early days of electric utilities, both scenarios resulted.⁹ Thus, starting in the early twentieth century, states allowed a single utility company to own and operate power generation, transmission, and distribution within a region. As a result of this exclusive market power, states recognized the need to provide agency oversight to protect customers from discriminatory and monopolistic prices.¹⁰ Thus, PSCs accepted their new powerful role as energy regulators.

In a short amount of time, every state enabled its own PSC to oversee the energy regulatory process. These agencies act in a quasi-judicial manner, with three to seven commissioners holding hearings, reviewing evidence, and ruling on what costs proposed by the utility companies may be passed on to electric customers.¹¹ Commissioners have the final say at the agency level, while staff members, administrative law judges, and other specialists typically aid decisionmaking.¹² Currently, there are a total of 201 commissioner seats on state PSCs around the country.¹³ Thirty-nine states appoint their PSC commissioners (typically through the governor), while the remaining eleven states elect them.¹⁴

PSCs have varying rules and names (such as the Connecticut Public Utilities Regulatory Authority or the Illinois Commerce Commission),

Munn v. Illinois, 94 U.S. 113, 123, 129, 135–36 (1877) (landmark case upholding a state’s ability to regulate private industry, specifically a grain elevator operator); *Our History and Timeline*, HAWAIIAN ELEC., <https://www.hawaiianelectric.com/about-us/our-history> [<https://perma.cc/54RR-VEL8>] (providing ice services as a public utility from 1901 to 1948).

⁸ FRANCISCO FLORES-ESPINO ET AL., NAT’L RENEWABLE ENERGY LAB’Y, COMPETITIVE ELECTRICITY MARKET REGULATION IN THE UNITED STATES: A PRIMER 7–8 (2016), <https://www.nrel.gov/docs/fy17osti/67106.pdf> [<https://perma.cc/39K2-2J3R>].

⁹ W.M. WARWICK, U.S. DEP’T OF ENERGY, A PRIMER ON ELECTRIC UTILITIES, DEREGULATION, AND RESTRUCTURING OF U.S. ELECTRICITY MARKETS 5.3 (2002), https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-13906.pdf [<https://perma.cc/6XDH-PRJG>].

¹⁰ FLORES-ESPINO ET AL., *supra* note 8, at 8.

¹¹ *Public Service Commissioner (State Executive Office)*, *supra* note 2.

¹² *See, e.g., Divisions*, CAL. PUB. UTILS. COMM’N, <https://www.cpuc.ca.gov/about-cpuc/divisions> [<https://perma.cc/2A7S-8UCQ>] (showing the many divisions aiding the California Public Utilities Commission (CPUC), and noting the “CPUC employs economists, engineers, administrative law judges, accountants, lawyers, and safety and transportation specialists”).

¹³ *Public Service Commissioner (State Executive Office)*, *supra* note 2.

¹⁴ *Id.*

yet they share many similarities. For one, PSCs use a comparable calculation when setting customers' rates. They link profits to capital investments,¹⁵ typically allowing between a nine to ten percent return on equity.¹⁶ And, importantly, state PSCs generally share the same mandate: ensure customers' utility rates are "just and reasonable."¹⁷ This language is the core charge of PSCs and has guided their decisionmaking for nearly a century.¹⁸ This "just and reasonable" standard reflects why PSCs exist — to hold in check the monopolistic market power of utility companies and serve as a proxy for real-world competition.¹⁹

In the infancy of utility regulation, courts disagreed about the meaning of the nebulous phrase "just and reasonable." In 1944, the U.S. Supreme Court provided some guidance when it reviewed the Federal Power Commission's rate order under a comparable "just and reasonable" standard.²⁰ According to the Court, this standard required energy regulators to balance investors' and consumers' interests, ensuring the return on investment was "sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."²¹ Almost immediately, state courts adopted similar instructions for their state utility regulators.²² Since then, this economic balancing act between shareholders and ratepayers has justified construction of nuclear power plants,²³ adoption of electric vehicle infrastructure,²⁴ and everything in between.

¹⁵ Peskoe, *supra* note 2, at 228. *But cf.* Decision and Order at 1–3, Pub. Utils. Comm'n Instituting a Proc. to Investigate Performance-Based Regul., No. 2018-0088 (Haw. P.U.C. Dec. 23, 2020) (transitioning away from traditional cost-of-service regulation, under which rates are driven by system costs, towards a system that rewards the utility company for exemplary performance).

¹⁶ Lisa Fontanella, *Electric ROE Authorizations Drift Lower in H1'20 as Virus Worries Continue*, S&P GLOB.: MKT. INTEL. (Aug. 4, 2020), <https://www.spglobal.com/marketintelligence/en/news-insights/research/electric-roe-authorizations-drift-lower-in-h1-20-as-virus-worries-continue> [https://perma.cc/3Z7C-K6RJ].

¹⁷ Peskoe, *supra* note 2, at 228; *see, e.g.*, ARK. CODE ANN. § 23-2-304(a)(1) (West 2019) (granting power to the Arkansas PSC to "[f]ind and fix just, reasonable, and sufficient rates"); OR. REV. STAT. ANN. § 756.040(1) (West 2021) ("[T]he commission shall make use of the jurisdiction and powers of the office to protect such customers, and the public generally, from unjust and unreasonable exactions and practices and to obtain for them adequate service at fair and reasonable rates.").

¹⁸ *See* Peskoe, *supra* note 2, at 224–25.

¹⁹ *Id.* at 228 ("The economic purpose of monopoly regulation generally, and ratemaking in particular, is to serve as a substitute for competition.").

²⁰ Fed. Power Comm'n v. Hope Nat. Gas Co., 320 U.S. 591, 594, 600 (1944).

²¹ *Id.* at 603.

²² *See, e.g.*, City of Detroit v. Mich. Pub. Serv. Comm'n, 14 N.W.2d 784, 784–85 (Mich. 1944).

²³ *E.g.*, Bos. Edison Co., 46 P.U.R.4th 431 (Mass. Dep't Pub. Utils. Apr. 30, 1982) ("The regulatory control over prices is not, of course, a matter of grace or political whim. Public utility law, as well as the tenets of our constitutional system, requires that 'just and reasonable' prices be set by public regulators.").

²⁴ *E.g.*, Decision and Order at 22, Hawaiian Elec. Co., No. 10-05 (Haw. P.U.C. Sept. 30, 2010) ("The commission finds and concludes that the [Electric Vehicle] Pilot Rates appear just, reasonable, and consistent with the public interest.").

PSC decisions dictate the country's energy profile. State PSCs regulate infrastructure construction either directly or indirectly. For direct regulation, power utilities generally must obtain a certificate of public convenience and necessity from the PSC before constructing an electric generation station.²⁵ PSCs may indirectly regulate the construction of power plants through approval of infrastructure spending costs incorporated into customers' electricity rates. In addition, PSCs oversee and approve utility companies' integrated resource plans — documents that lay out how, when, and what the utility company will build to ensure enough electric generation for its customers.²⁶ These plans provide the road map for the country's electric future, and thoughtful oversight by a state PSC can ensure affordable, reliable, and clean energy.²⁷

Today, utility companies can have significant revenue²⁸ and political clout,²⁹ influencing both sides of the climate change debate. On one side, many utilities have partnered with electric vehicle companies to drive national adoption of electric vehicles and related infrastructure.³⁰ In contrast, other utilities have used their capital to undermine rooftop

²⁵ See, e.g., TEX. UTIL. CODE ANN. § 37.051(a) (West 2019) (“An electric utility may not directly or indirectly provide service to the public under a franchise or permit unless the utility first obtains from the commission a certificate that states that the public convenience and necessity requires or will require the installation, operation, or extension of the service.”).

²⁶ See, e.g., *Integrated Resources Planning*, CONN. DEP'T ENERGY & ENV'T PROT. (Oct. 2021), <https://portal.ct.gov/DEEP/Energy/Integrated-Resource-Planning/Integrated-Resource-Planning> [<https://perma.cc/M342-BKZA>].

²⁷ See, e.g., Press Release, Solar Energy Indus. Ass'n, South Carolina PSC Strikes Down Duke Resource Plan (June 29, 2021), <https://www.seia.org/news/south-carolina-psc-strikes-down-duke-resource-plan> [<https://perma.cc/6K4B-JVWE>].

²⁸ For example, NextEra Energy, the parent company of Florida Power & Light, generated annual revenues of \$17 billion in 2020. *NextEra Energy Inc.*, WALL ST. J. MKTS., <https://www.wsj.com/market-data/quotes/NEE/financials/annual/income-statement> [<https://perma.cc/GQJ3-9XHR>]. Many U.S. utilities are owned by holding companies, which collectively enjoy market capitalization of over \$1 trillion. Correspondence with Ari Peskoe, Dir. of Elec. L. Initiative, Harvard L. Sch. Env't & Energy L. Program, to author (Jan. 17, 2022) (on file with the Harvard Law School Library).

²⁹ See, e.g., Matt Kasper, *Utility CEOs Contribute Personal Money to Help Republicans; Utility PACs Also Favor GOP*, ENERGY & POL'Y INST. (Oct. 22, 2020), <https://www.energyandpolicy.org/utility-ceo-political-contributions-in-2020> [<https://perma.cc/54CF-BSHB>]; see also Press Release, U.S. Dept. of Just., U.S. Att'y's Off. N. Dist. Ill., Commonwealth Edison Agrees to Pay \$200 Million to Resolve Federal Criminal Investigation into Bribery Scheme (July 17, 2020), <https://www.justice.gov/usao-ndil/pr/commonwealth-edison-agrees-pay-200-million-resolve-federal-criminal-investigation> [<https://perma.cc/5VK9-8F9Z>].

³⁰ For example, NRG Energy, NextEra Energy, Southern Company, and Duke Energy are all members of the Zero Emission Transportation Association, an organization committed to 100% electric vehicle sales by 2030. See *Membership*, ZERO EMISSION TRANSP. ASS'N, <https://www.zeta2030.org/members> [<https://perma.cc/VB86-R6VN>].

solar initiatives,³¹ combat clean energy mandates,³² and build more fossil fuel–powered generation stations.³³ While utility companies have been building and profiting off fossil fuels without internalizing the downstream consequences and costs for decades, their regulators — state agency leaders — have approved their actions at every step of the way. Thus, this Chapter is not about the utility companies; it is about the agencies that regulate them. It is about the relatively few people who sit on these commissions and make decisions affecting the global future, and it is about how these regulators resist environmental responsibility, exercising a chokehold on meaningful climate progress.

2. *The Mismatch Between Mandate and Movement.* — PSC decisions meaningfully affect our environment, but the environment does not meaningfully affect PSC decisions. For the entirety of their existence, PSCs have generally made energy-related decisions regardless of environmental impact,³⁴ let alone climate impact.³⁵ This disregard has significantly contributed to the modern-day climate crisis. Since 1970, the burning of fossil fuels has combined with industrial processes to contribute over three-fourths of greenhouse gas (GHG) emissions increases.³⁶ In 2019, the burning of fossil fuels accounted for ninety-two percent of all U.S. anthropogenic CO₂ emissions.³⁷ And even today,

³¹ E.g., Taylor Kate Brown, *Florida's Amendment 1: A Cautionary Tale for 2018?*, BBC NEWS (May 28, 2017), <https://www.bbc.com/news/world-us-canada-39258421> [<https://perma.cc/QJ6C-NAER>] (noting that utility companies contributed \$20 million to “Consumers for Smart Solar,” a deceptively named group that attempted to undermine rooftop solar initiatives by misleading voters with a referendum question described by Justice Pariente of the Florida Supreme Court as a “wolf in sheep’s clothing,” see Advisory Op. to the Att’y Gen. re Rts. of Elec. Consumers Regarding Solar Energy Choice, 188 So. 3d 822, 835 (Fla. 2016) (Pariente, J., dissenting)).

³² E.g., Ryan Randazzo, *APS Parent Company Spent \$37.9M Fighting Clean-Energy Measure*, ARIZ. REPUBLIC (Jan. 17, 2019, 12:23 PM), <https://www.azcentral.com/story/news/politics/arizona/2019/01/17/pinnacle-west-spent-38-million-fight-arizonas-prop-127-clean-energy-measure/2595711002> [<https://perma.cc/8SRJ-QW78>].

³³ E.g., Michael Isaac Stein, *Entergy Acknowledges Astroturfing Campaign for Power Plant, But Says It Didn't Know About It*, THE LENS (May 10, 2018), <https://thelensnola.org/2018/05/10/entergy-says-a-public-relations-firm-hired-people-to-speak-on-behalf-of-its-new-power-plant> [<https://perma.cc/ZW3N-8AJW>] (stating that Entergy admitted it hired a public relations firm to promote grassroots support for a gas-fired power plant but denied approving the use of paid actors to show up at PSC meetings in support of the plant).

³⁴ Inara Scott, *Teaching an Old Dog New Tricks: Adapting Public Utility Commissions to Meet Twenty-First Century Climate Challenges*, 38 HARV. ENV'T L. REV. 371, 375–76 (2014) (“[E]nergy law — including law governing public utility commissions — has consistently focused on cost containment and net economic benefits. . . . Environmental impacts and other related issues are considered only to the extent they cause direct, measurable, and near-term financial impacts on ratepayers.” (footnotes omitted)).

³⁵ See *infra* ch. IV, section B, pp. 1624–32.

³⁶ *Global Greenhouse Gas Emissions Data*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> [<https://perma.cc/29AY-2VG6>].

³⁷ *Energy and the Environment Explained*, U.S. ENERGY INFO. ADMIN. (May 21, 2021), <https://www.eia.gov/energyexplained/energy-and-the-environment/where-greenhouse-gases-come-from.php> [<https://perma.cc/MH9B-T93V>].

state PSCs continue to approve hundreds of millions of ratepayers' dollars to prolong the life of coal-powered generation,³⁸ adding millions of tons of CO₂ to the atmosphere.³⁹

The resistance of PSCs to considering environmental impacts is predictable. PSCs are century-old creatures of economics, prioritizing low rates and reliable service. Since their inception in the early twentieth century, these commissions have been staffed with economic and engineering experts,⁴⁰ and they have case law, procedures, and internal planning processes fine-tuned to assess the financial benefit and reliability of their energy-planning decisions.⁴¹ The professional backgrounds of PSC commissioners are generally not prescribed,⁴² sometimes leading to various experiences in unrelated technologies⁴³ and livelihoods.⁴⁴ Admittedly, solving climate change is a task any agency would struggle with, but PSCs are particularly poorly positioned for the job.

³⁸ See Commission Order at 1, 6, Appalachian Power Co., No. 20-1040-E-CN (W. Va. Pub. Serv. Comm'n Oct. 12, 2021) (approving cost recovery to continue operating the Amos, Mountaineer, and Mitchell coal-fired plants).

³⁹ The three coal-fired power plants supported by the West Virginia PSC in the October 2021 Order, *id.*, emitted, approximately, a combined 20.7 million tons of CO₂ in 2020 alone. See *Air Markets Program Data*, U.S. ENV'T PROT. AGENCY (Mar. 2021), <https://ampd.epa.gov/ampd> [<https://perma.cc/5PQK-ETHT>] (access the "Query" tab; then select "All Programs" and "Emissions"; next select "Annual" and "2020"; next select "Facility Name," and search and add: "John E Amos (3935)," "Mitchell (WV)," and "Mountaineer (1301)"; next select "No Aggregation (Unit Level)"; next select "CO₂ (short tons)"; then download the dataset and sum the CO₂ emissions for 2020). It would take over 300 million trees planted and grown for ten years to sequester one year of CO₂ emissions from these plants. See *Greenhouse Gas Equivalencies Calculator*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> [<https://perma.cc/UD8X-RL64>] (calculating 20.7 million CO₂ tons' equivalency).

⁴⁰ At the start of the twentieth century, some states required PSC commissioners to be lawyers or civil engineers or to possess some knowledge relevant to utility management. See William Dunton Kerr, *Qualifications Needed for Public Utility Commissioners*, 53 ANNALS AM. ACAD. POL. & SOC. SCI. 19, 20-21 (1914). The most common requirements were simply related to age, political affiliation, and state residency. *Id.* at 19-20.

⁴¹ See Scott, *supra* note 34, at 395, 400, 410.

⁴² Substantive statutory qualifications for PSC commissioners remain rare, generally entrusting a high degree of discretion in the governor. See KEVIN MCCARTHY, CONN. OFF. OF LEGIS. RSCH., 2009-R-0030, QUALIFICATION REQUIREMENTS FOR PUC COMMISSIONERS (2009), <https://www.cga.ct.gov/2009/rpt/2009-R-0030.htm> [<https://perma.cc/63HL-7XTY>].

⁴³ The New Hampshire Governor's most recent appointment, Commissioner Dan Goldner, came with a background of working for Texas Instruments, and when questioned about his view on climate change, responded, "the earth's natural cycle has produced warmer and colder climates over thousands or millions of years." Daniela Allee, *At Hearing, N.H. Public Utilities Commission Nominee Addresses Climate Change, Energy Costs*, N.H. PUB. RADIO (Apr. 22, 2021, 4:47 PM), <https://www.nhpr.org/nh-news/2021-04-22/at-hearing-n-h-public-utilities-commission-nominee-addresses-climate-change-energy-costs> [<https://perma.cc/9U84-N68Z>].

⁴⁴ A current Alabama PSC Commissioner is a catfish and cattle farmer. See Katie Beth Buckner & Reid-Claire Stein, *PSC Seat 2 Incumbent Beeker: "My Top Priority Is to Keep People Safe," MONTGOMERY ADVERTISER* (Oct. 25, 2018, 1:57 PM), <https://www.montgomeryadvertiser.com/story/news/politics/2018/10/23/public-service-commission-seat-2-incumbent-republican-chip-beeker-jr-democrat-kari-powell/1684892002> [<https://perma.cc/N3H6-V48Z>].

The unwillingness of PSCs to abandon their traditional mandate has forced environmental advocates to make predominantly economic arguments. For example, in PSC dockets today one can find the Arkansas chapter of the Audubon Society — a “national conservation organization dedicated to protecting birds” — offering market principles in support of large, distributed solar projects and motivating their bird-watching members to lobby their local PSC.⁴⁵ Luckily for environmentalists, the economic arguments for renewable energy are increasingly easy to make.⁴⁶ In the past decade, public demand, environmental advocacy, federal and state legislative policy, and private investments have driven renewable energy development up and costs down, allowing renewable energy prices to be competitive with those of traditional fuel sources.⁴⁷ But the incongruity of a bird-watching group making economic arguments before a public utility regulator signals that the administrative process is out of whack.

In response to this mismatch between mandate and movement, some scholars have proposed policy changes to bring PSCs on board the climate fight, or in other words, “teach an old dog new tricks.”⁴⁸ In 2014, Professor Inara Scott considered a variation on this mismatch problem, assessing how and why PSCs dodged opportunities to modernize the energy grid.⁴⁹ She too concluded that the shortsighted economic foundation of the current regulatory structure inhibited development of these grid modernization projects because their approval required considerations outside of short-term cost recovery.⁵⁰ In addition, Professor Michael Dworkin argues that the authority of PSCs to consider environmental impacts already exists.⁵¹ In 2001 and 2006, Dworkin and his team reviewed every state’s PSC laws to combat the “misconception” that PSCs

⁴⁵ Initial Comments of Audubon Arkansas at 1, Net-Metering and the Implementation of Act 827 of 2015, No. 16-027-R (Ark. Pub. Serv. Comm’n Aug. 19, 2016); *see id.* at 1–2; *see also* *Get to Know Your Public Utility Commission — and Pressure It*, NAT’L AUDUBON SOC’Y (Fall 2019), <https://www.audubon.org/magazine/fall-2019/get-know-your-public-utility-commission-and> [<https://perma.cc/3HKT-B9NU>] (explaining to Audubon members why PSCs are “gatekeepers” to necessary grid reform and encouraging them to lobby their state commission).

⁴⁶ The Sierra Club’s Beyond Coal Campaign, to which many attribute the rapid decline in coal generation in the United States, was driven by lawyers making economic arguments before state PSCs. *See* Michael Grunwald, *Inside the War on Coal*, POLITICO (May 26, 2015, 11:45 PM), <https://www.politico.com/agenda/story/2015/05/inside-war-on-coal-000002> [<https://perma.cc/PZ9D-JKN7>] (“Economics was the most powerful weapon in the Sierra Club’s arsenal.”).

⁴⁷ *Levelized Cost of Energy, Levelized Cost of Storage, and Levelized Cost of Hydrogen*, LAZARD (Oct. 28, 2021), <https://www.lazard.com/perspective/levelized-cost-of-energy-levelized-cost-of-storage-and-levelized-cost-of-hydrogen> [<https://perma.cc/UQ5W-CGLV>].

⁴⁸ *E.g.*, Scott, *supra* note 34.

⁴⁹ *See id.* at 376, 400.

⁵⁰ *Id.* at 400.

⁵¹ *See* Michael Dworkin et al., *The Environmental Duties of Public Utility Commissions*, 18 PACE ENV’T L. REV. 325, 326–27 (2001); Michael Dworkin et al., *Revisiting the Environmental Duties of Public Utility Commissions* (2006), 7 VT. J. ENV’T L. 1, 1 (2006) [hereinafter Dworkin 2006].

are “solely economic regulators.”⁵² His research team identified existing laws in nearly every state permitting or requiring environmental considerations to some extent.⁵³

Today, more than ever, advocates and state leaders are pressuring these agencies to act on the climate crisis. And today, more than ever, state PSCs are holding firm to their traditional economic mandate, exacerbating the divide between mandate and movement.

B. The Continued Resistance of PSCs to Climate Considerations

PSC resistance to addressing climate change is less about a lack of power, but rather a lack of *willpower*. Disinclined PSCs with vague environmental mandates — such as in Maryland and Wisconsin — will often narrowly interpret their governing statutes to avoid consideration of climate impacts. Even PSCs with clear mandates to consider the climate — such as in Hawaii and Iowa — can bristle at their new environmental role, finding ways to evade meaningful review. In contrast, PSCs eager to address the climate have interpreted their existing authority broadly, such as in Michigan. There is a growing trend of states updating their PSCs’ governing laws to explicitly require consideration of climate change and GHGs. Although a step in the right direction, recent PSC responses suggest these mandates will fall short absent a fundamental shift in PSCs’ institutional cultures and approaches to climate change.

1. Denying Responsibility to Consider Climate Change. —

(a) *Maryland PSC.* — Maryland has been at the forefront of action on climate change. In 2007, Maryland was an early participant in the Regional Greenhouse Gas Initiative (RGGI, pronounced “Reggie”), the nation’s first cooperative, multistate cap-and-trade effort to reduce GHG emissions.⁵⁴ That same year, the state established the Maryland Commission on Climate Change, which brought in experts and stakeholders to develop annual climate change action plans.⁵⁵ In 2013, the Maryland legislature became one of the first to approve offshore wind energy and revised its renewable energy portfolio standard to source twenty-five percent of its electricity from renewable sources by 2020.⁵⁶ And in 2018, Baltimore became the first east-coast city to file a lawsuit against fossil fuel companies based on state common law claims, leading

⁵² Dworkin 2006, *supra* note 51, at 1.

⁵³ See *id.* at 1, 7; *id.* at 8–69 (appendix containing statutory provisions from Dworkin’s fifty-state survey).

⁵⁴ *Program Design Archive*, THE REG’L GREENHOUSE GAS INITIATIVE, <https://www.rggi.org/program-overview-and-design/design-archive> [https://perma.cc/QT8W-ENRE].

⁵⁵ Md. Exec. Order No. 01.01.2007.07 (Apr. 20, 2007), *rescinded by* MD. CODE REGS. 01.01.2014.14 (2014).

⁵⁶ *Offshore Wind Energy in Maryland*, MD. ENERGY ADMIN., <https://energy.maryland.gov/Pages/Info/renewable/offshorewind.aspx> [https://perma.cc/M5WC-8MLA].

the way for twenty-seven cities, counties, and states to file similar lawsuits.⁵⁷

Against this backdrop, in 2018, the Charles P. Crane Generating Station applied to the Maryland PSC for approval to shut down its coal-powered generation station and replace it with three combustion turbines fired primarily with gas.⁵⁸ A public utility law judge issued a proposed approval of the project, and three environmental groups appealed the decision: Blue Water Baltimore, the Gunpowder Riverkeeper, and the Essex-Middle River Civic Council.⁵⁹ The environmental appellants challenged the administrative law judge's failure to consider climate change impacts as violating the statutory requirement to give "due consideration" to water and air pollution.⁶⁰ The appellants warned that rising sea levels would affect the construction and longevity of the gas plant's infrastructure and stressed that climate change is "the most pressing issue facing this state" and "must be front and center in all permitting decisions."⁶¹

Upon consideration of the appeal, the Maryland PSC Staff denied any obligation to consider climate change. They asserted that no part of the governing statute "explicitly requires that a discussion of climate change be included as part of the approval' . . . and [that] the Commission has never required any consideration of climate change"⁶² The Maryland PSC agreed with this position. It concluded that "[t]he statute does not specifically or generally require considerations regarding climate change" because the governing statute only required the PSC to consider "*when applicable*, air and water pollution."⁶³ This decision to approve a fossil fuel-burning power plant was not appealed and came two months after Maryland had become the tenth state in the country to commit to a fifty percent or greater renewable energy standard by 2030.⁶⁴ The Maryland PSC's denial of a legal

⁵⁷ See *Cities and States Are Taking Climate to the Courtroom*, BLOOMBERG L., <https://flo.uri.sh/visualisation/5709196/embed> [<https://perma.cc/8CH7-LWQ5>] (mapping where, when, and how cities and states have legally challenged fossil fuel companies); Complaint at 1, *Vermont v. Exxon Mobile Corp.*, No. 21-cv-00260 (Vt. Super. Ct. Sept. 14, 2021); see also Complaint, *Baltimore v. BP P.L.C.*, No. 24-C-18-004219 (Cir. Ct. Baltimore City July 20, 2018).

⁵⁸ Order Denying Intervenor's Appeal at 1 n.1, *Charles P. Crane Generating Station*, No. 9482 (Md. Pub. Serv. Comm'n July 24, 2019) [hereinafter *Maryland PSC Order Denying Appeal*].

⁵⁹ *Id.* at 1–2.

⁶⁰ Memorandum of Intervenor's Appeal at 2, 4, 6, *Charles P. Crane Generating Station*, No. 9482 (Md. Pub. Serv. Comm'n May 29, 2019) (quoting MD. CODE ANN., PUB. UTIL. § 7-207(e) (West 2019)).

⁶¹ *Id.* at 4, 5, 7.

⁶² *Maryland PSC Order Denying Appeal*, *supra* note 58, at 6–7 (quoting Reply Memorandum at 6, *Charles P. Crane Generating Station*, No. 9482 (Md. Pub. Serv. Comm'n June 5, 2019)).

⁶³ *Id.* at 13–14; MD. CODE ANN., PUB. UTIL. § 7-207(e) (West 2019) (emphasis added).

⁶⁴ Ovetta Wiggins, *Half of Maryland's Electricity to Come from Renewable Sources by 2030*, WASH. POST (May 22, 2019), <https://www.washingtonpost.com/local/md-politics/half-of-marylands-electricity-to-come-from-renewable-sources-by-2030/2019/05/22/2072ef10-7cba-11e9-8ede-f4abf521ef17> [<https://perma.cc/5KD9-5ZB5>].

obligation conflicted with the position of many scholars⁶⁵ and took members of the Maryland legislature by surprise.⁶⁶

(b) *Other Examples.* — The Maryland PSC is not alone in confining its existing mandate to exclude consideration of climate change. Farther west, Wisconsin has made it a stated “goal of the state that, to the extent that it is cost-effective and technically feasible, all new installed capacity for electric generation in the state be based on renewable energy resources,”⁶⁷ and directs its agencies to consider the impact of their actions on the environment.⁶⁸ In 2020, Wisconsin’s task force on climate change released a report calling for the PSC to track its progress to ensure a 100% net-zero carbon emission power sector by 2050.⁶⁹

Around the same time, the Wisconsin PSC received an application to construct a gas-fired combined-cycle electric generation facility. Although the statute prohibits the Wisconsin PSC from considering the “impact of air pollution” if the proposed facility would meet the state’s air quality standards,⁷⁰ the administrative law judge permitted evidence related to climate change in the hearing.⁷¹ On interlocutory appeal, the Wisconsin PSC overturned the administrative law judge’s decision, arguing that Wisconsin’s public utilities law drew “broad jurisdictional boundaries between the responsibilities of the Commission and [those of the Department of Natural Resources], and plac[ed] air pollution within the jurisdiction of the [Department] and outside the jurisdiction of the

⁶⁵ In 2006, Dworkin argued that the law governing the Maryland PSC authorized environmental consideration, highlighting that the “Commission shall, in its role supervising and regulating public service companies, ‘consider . . . the conservation of natural resources, and the preservation of environmental quality.’” Dworkin 2006, *supra* note 51, at 2 (quoting MD. CODE ANN., PUB. UTIL. § 2-113 (West 2000)).

⁶⁶ See Video: Delegate Lorig Charkoudian Presenting Her Bill, HB 0298, Before the Economic Matters Committee, MD. GEN. ASSEMBLY, at 49:45–57:48 (Jan. 21, 2021), https://mgaleg.maryland.gov/mgaweb/Committees/Media/false?cmte=ecm&ys=2021RS&clip=ECM_I_21_2021_meeting_1&url=https%3A%2F%2Fmgahouse.maryland.gov%2Fmga%2Fplay%2F93a7175f-79c3-4b2e-8557-dof5a2654d6e%2F%3Fcatalog%2F03e481c7-8a42-4438-a7da-93ff74bdaa4c%26 [https://perma.cc/YY3G-R74G] (“[U]p until recently I would have thought that the preservation of environmental quality would have included climate, especially given the — the significance of the climate crisis we’re facing. But what we learned recently . . . in Order 89211, what we learned is that neither the [PSC] staff nor the Commission itself believes that the consideration of environmental quality includes climate change.” *Id.* at 53:23–54:03.).

⁶⁷ WIS. STAT. ANN. § 1.12(3)(b) (West 2021).

⁶⁸ *Id.* § 1.11 (Wisconsin’s equivalent of the National Environmental Policy Act (NEPA)). The federal National Environmental Policy Act, 42 U.S.C. §§ 4321–4347, requires the federal government to consider the environmental impact of its decisions.

⁶⁹ STATE OF WIS., GOVERNOR’S TASK FORCE ON CLIMATE CHANGE REPORT 40 (2020).

⁷⁰ WIS. STAT. ANN. § 196.491(3)(d)(3)–(4) (West 2021).

⁷¹ Applicants’ Request for Interlocutory Review at 2–3, South Shore Energy, LLC, No. 9698-CE-100 (Wis. Pub. Serv. Comm’n June 10, 2019).

Commission.”⁷² When the Commission’s final order came out approving a new gas-powered plant in 2020, there was not a single mention of the plant’s potential impact on the climate.⁷³

Even farther west, in a state generally less keen on climate issues, citizens of Montana have been pressuring their leaders to plan for climate change.⁷⁴ In the spring of 2020, pressure trickled up into the state’s PSC, where then–Commissioner Roger Koopman motioned the Commission to open a docket to investigate the impacts of climate change on Montana’s electricity grid.⁷⁵ Commissioner Koopman, while advocating for the PSC to host a climate change forum, admitted that the members of the Commission “tend to be . . . skeptics” on climate change, and recognized the fear of some Commissioners that the forum would simply be “packed with a bunch of ‘greenies.’”⁷⁶ In opposition to the climate change docket, Vice Chairman Bob Lake stressed his belief that the Commission lacked legal authority to consider climate change, given it is “basically an economic agency.”⁷⁷ The motion failed 3–2. In all fairness, Montana’s legislature has yet to pass an explicit directive to its PSC to consider the environment, as the state’s PSC is exempt from the state’s requirements to account for environmental effects.⁷⁸ But once again, the agency’s traditional mandate overpowered any opportunity and willingness to consider the climate.

2. *Avoiding Their Role in Climate Change.* — In response to this denial of authority, there is a growing trend of states enacting legislation explicitly requiring PSCs to consider the impacts of their decisions on climate change. For example, in response to the 2019 Maryland PSC

⁷² Order at 9, 14, South Shore Energy, LLC, No. 9698-CE-100 (Wis. Pub. Serv. Comm’n July 31, 2019).

⁷³ See Final Decision, South Shore Energy, LLC, No. 9698-CE-100 (Wis. Pub. Serv. Comm’n Jan. 31, 2020).

⁷⁴ Although two-thirds of Montanans report a belief in global warming (five percentage points less than the national average), seventy-six percent report support for funding research into renewable energy sources (one percentage point less than the national average). See Jennifer Marlon et al., *Yale Climate Opinion Maps 2021*, YALE PROGRAM ON CLIMATE CHANGE COMM’N (Feb. 23, 2022), <https://climatecommunication.yale.edu/visualizations-data/ycom-us> [<https://perma.cc/34U2-CAX8>]; see also Letter from Mont. Climate Sols. Council to Greg Gianforte, Mont. Governor (Aug. 11, 2021), <https://ewscripps.brightspotcdn.com/df/ec/99b4f9664fc199d3a8baa513c36a/climate-council-letter-gov-gianforte-aug112021.pdf> [<https://perma.cc/RA7Q-Z2Y5>].

⁷⁵ See *April 7th 2020 Business Meeting*, MONT. PUB. SERV. COMM’N, at 55:20 (Apr. 7, 2020), https://dataportal.mt.gov/t/DOAPSC/views/EDDISearch_15650306559830/PSCEDDISearch?iframeSizedToWindow=true&:embed=y&:showAppBanner=false&:display_count=no&:showVizHome=no&:origin=viz_share_link [<https://perma.cc/43TG-SKEQ>] (select Date “4/7/2020”; then select file with Document Type “Commission Work Session”).

⁷⁶ *Id.* at 1:06:00–1:06:33.

⁷⁷ *Id.* at 1:10:50 (“The real problem with the Public Service Commission sponsoring a forum like this is that we are a regulating agency with that regulation and we are basically an economic agency . . .”).

⁷⁸ The state’s NEPA statute excludes the PSC. MONT. CODE ANN. § 75-1-201(3) (West 2021).

Order discussed above, the Maryland legislature passed legislation unambiguously instructing its PSC to consider GHGs “based on the best available scientific information recognized by the Intergovernmental Panel on Climate Change.”⁷⁹ This is only the most recent example of such legislation. In the summer of 2021, Colorado⁸⁰ and Maine⁸¹ also passed legislation mandating climate change considerations in PSC decisions. Their laws came after Massachusetts enacted similar legislation updating PSC authority the previous March.⁸² The State of Washington⁸³ and Washington, D.C.⁸⁴ signed similar bills in 2019. Hawaii has had an explicit GHG mandate for its PSC since 2011.⁸⁵ Oregon almost joined this list — after the state legislature theatrically failed to pass two climate bills due to Republican senator walkouts,⁸⁶ the Oregon Governor issued an executive order directing the PSC to “exercise its broad statutory authority to reduce GHG emissions.”⁸⁷

A clear legislative directive to a state’s PSC might appear like an obvious solution, especially when PSCs cite a lack of authority as the reason why they cannot (or will not) consider climate change impacts. Unfortunately, such a directive on its own is likely insufficient to counteract century-old administrative cultures and biases. A review of recent climate-related PSC orders illustrates how utility regulators can neglect even a clear mandate to consider the climate by conducting a superficial review of climate impacts.

(a) *Hawaii Public Utilities Commission (PUC)*. — As an island state, Hawaii⁸⁸ has perhaps the greatest reason to worry about sea level rise from the burning of fossil fuels. As early as 1977, the Hawaii State

⁷⁹ MD. CODE ANN., PUB. UTIL. § 7-207(e)(4)(iii) (West 2021).

⁸⁰ 2021 Colo. Sess. Laws 1161–62.

⁸¹ 2021 Me. Laws ch. 279.

⁸² 2021 Mass. Acts 7–38; *see also id.* 13 (“In discharging its responsibilities . . . the [PSC] shall . . . prioritize safety, security, reliability of service, affordability, equity and reductions in greenhouse gas emissions to meet statewide greenhouse gas emission limits . . .”).

⁸³ 2019 Wash. Sess. Laws 1608–50.

⁸⁴ 22 D.C. Reg. ch. 583 (Jan. 18, 2019).

⁸⁵ 2011 Haw. Sess. Laws 287; HAW. REV. STAT. § 269-6(b) (2021) (“The public utilities commission shall consider the need to reduce the State’s reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority . . . [T]he commission shall explicitly consider, quantitatively or qualitatively, the effect of the State’s reliance on fossil fuels on . . . [g]reenhouse gas emissions.”).

⁸⁶ Dirk VanderHart, *Oregon Legislative Priorities in Limbo, As Climate Standoff Continues*, OR. PUB. BROAD. (Feb. 26, 2020, 2:55 PM), <https://www.opb.org/news/article/oregon-legislature-republican-walkout-climate-standoff-continues> [<https://perma.cc/9XLM-F27L>].

⁸⁷ Or. Exec. Order No. 20-04 (Mar. 10, 2020).

⁸⁸ Although the correct spelling of the state in the Hawaiian language requires the use of an *okina* (‘), an act of Congress is required to update the name of the state from “Hawaii” to “Hawai‘i.” *See* BOBBY CAMARA, U.S. DEP’T OF INTERIOR, APPENDIX F: GEOGRAPHIC NAMES (2004), <https://irma.nps.gov/DataStore/DownloadFile/575333> [<https://perma.cc/9TPU-Z3VL>]. This Chapter uses the Hawaiian spelling when used by the respective state entity (e.g., Supreme Court of the State of Hawai‘i).

Legislature passed laws demonstrating a “manifest” intent to prioritize “renewable energy sources to reduce pollution in addition to securing the potential economic benefits and enhanced reliability of the State’s energy supply.”⁸⁹ In 2007, the legislature updated its PUC’s mandate to permit consideration of an increased need for renewable energy in conjunction with its traditional economic mandate.⁹⁰ And then in 2011, the legislature amended its laws to make air pollution considerations mandatory, requiring its PUC to consider “the effect of the State’s reliance on fossil fuels on . . . greenhouse gas emissions.”⁹¹

Despite clear direction and a longstanding legislative intent to move away from fossil fuels, the Hawaii PUC continues to resist meaningful environmental consideration. In 2015, Maui Electric, an electric utility company, applied for approval from the PUC to purchase coal- and petroleum-powered energy.⁹² When an environmental group attempted to initiate a hearing on the environmental impacts of the energy purchase, the PUC denied their motion.⁹³ And when the PUC ultimately approved Maui Electric’s application, it asserted that the purchase was “anticipated to help accomplish the State’s policy goals of reaching 100% renewable energy by 2045.”⁹⁴ In 2017, the Supreme Court of the State of Hawai‘i vacated the PUC’s decision to deny a hearing on the environmental impacts of Maui Electric’s application as a violation of the state’s constitutional due process,⁹⁵ faulting the PUC’s hesitation to engage meaningfully in environmental consideration.

The court’s opinion had seemingly little impact. Two years later, the PUC was back before the Supreme Court of the State of Hawai‘i for failing to consider the reduction of GHG emissions in approving a power purchase agreement.⁹⁶ Rather than make its own express findings, the PUC had simply restated the utility company’s assertion that the facility would contribute to the state’s renewable energy goals.⁹⁷ Faulting the PUC for ignoring comments about increased GHG emissions,⁹⁸ the court remanded the decision back to the agency with instruction to “give *explicit* consideration to the reduction of GHG emissions in determining whether to approve the Amended [Power Purchase Agreement].”⁹⁹ Environmental advocates are left hoping that a second direct instruction from the state’s

⁸⁹ *In re Maui Elec. Co.*, 408 P.3d 1, 14 (Haw. 2017).

⁹⁰ *Id.*

⁹¹ *Id.* (quoting 2011 Haw. Sess. Laws 287).

⁹² *See id.* at 5.

⁹³ *Id.* at 6–7.

⁹⁴ *Id.* at 8 (quoting Decision and Order at 32, Maui Elec. Co., No. 2015-0094 (Haw. P.U.C. Sept. 24, 2015)).

⁹⁵ *See id.* at 23.

⁹⁶ *In re Haw. Elec. Light Co.*, 445 P.3d 673, 677 (Haw. 2019).

⁹⁷ *See id.* at 696.

⁹⁸ *See id.*

⁹⁹ *See id.* at 697.

highest court to consider the climate will finally alter the calculus of Hawaii's PUC.

(b) *Iowa Utilities Board*. — The Iowa Utilities Board's (the Board) recent approval of the Dakota Access Pipeline demonstrates that an unwilling PSC can parse climate change impacts into nonexistence. The Dakota Access Pipeline carries oil from North Dakota to Illinois.¹⁰⁰ It has received pushback all along its route,¹⁰¹ and some of those fights have played out before state PSCs. In January 2015, Dakota Access, LLC petitioned the Iowa Utilities Board for a permit to construct 346 miles of the pipeline through Iowa.¹⁰² Environmental groups intervened and argued that granting the pipeline's permit would promote the exploration of oil, increase GHG emissions, and delay transition to a carbon-neutral energy sector.¹⁰³ In response, Dakota Access argued the Board lacked authority to consider climate change.¹⁰⁴

The Board did not outright reject authority to consider climate change impacts. Rather, it so severely narrowed its scope of review that it concluded its decision — to permit the Dakota Access Pipeline — had no significant impact on climate change. The Board acknowledged that “[c]limate change in general is a very important issue,” but found “there is no evidence in this case that denial of the permit would affect climate change to any significant degree.”¹⁰⁵ In just two paragraphs,¹⁰⁶ the Board justified its decision by reasoning that denial of this pipeline permit would not reduce the demand for petroleum; oil delivery would “continue to take place regardless of whether this pipeline is built.”¹⁰⁷ And so,

¹⁰⁰ Final Decision and Order at 4, Dakota Access, LLC, No. HLP-2014-0001 (Iowa Utils. Bd. Mar. 10, 2016).

¹⁰¹ Perhaps the most significant pushback has come from the Standing Rock Sioux tribe. See *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 255 F. Supp. 3d 101, 111 (D.D.C. 2017). Although the pipeline was initially planned to run north of Bismarck, North Dakota, its developers rerouted the project south after opposition from Bismarck's constituents who feared water pollution. T.J. Raphael & Eryn Mathewson, *Bismarck Residents Got the Dakota Access Pipeline Moved Without a Fight*, THE WORLD (Dec. 1, 2016, 2:15 PM), <https://theworld.org/stories/2016-12-01/bismarck-residents-got-dakota-access-pipeline-moved-without-fight> [https://perma.cc/YNV4-DRVA]. The new route runs through a critical water source for the Standing Rock Sioux tribe. Laura Sanicola, *Illinois Court Vacates Approval of Dakota Access Pipeline Capacity Expansion*, REUTERS (Jan. 12, 2022, 7:25 PM), <https://www.reuters.com/business/energy/illinois-court-vacates-approval-dakota-access-pipeline-capacity-expansion-2022-01-12/> [https://perma.cc/65EY-MEJJ].

¹⁰² Final Decision and Order, *supra* note 100, at 4.

¹⁰³ See *id.* at 7–8, 22–23.

¹⁰⁴ *Id.* at 22.

¹⁰⁵ *Id.* at 24.

¹⁰⁶ *Id.* at 23–24.

¹⁰⁷ *Id.* at 23.

through circular logic, the Board declared that permitting the Dakota Access pipeline would have no impact on climate change.¹⁰⁸

The Board's justification was familiar to the docket's participants. Less than one month prior to the Board's final permitting decision, intervenors petitioned Board Member Nick Wagner to recuse himself from the proceeding, asserting "he was resistant to the recognition of Climate Change because of his fear that it would damage his ability to be successful in running for political office."¹⁰⁹ Pursuant to Iowa law, Board Member Wagner himself ruled on and denied the motion to recuse. He explained:

[R]egardless of whether I believe climate change is caused by using fossil fuels, I believe climate change is not entitled to great weight in our deliberations in this proceeding. Fossil fuels are consumed because there is demand in the marketplace and granting or denying a permit in this proceeding will not materially affect the demand for oil products. The evidence in the record shows continued production and consumption of oil despite the possible existence of this and other pipelines, showing that the market and use of fossil fuels is driven by demand. I would also like to clarify that I would never put my personal interests ahead of the public interest.¹¹⁰

The permitting of the Dakota Access pipeline in Iowa serves as a cautionary tale that an unwilling PSC can still avoid meaningful climate review even under the guise of considering the climate.

3. *The Counterexample.* — Not all state commissioners have agreed with Iowa Board Member Wagner's resolution that permitting a pipeline would have no significant effect on the climate. A recent decision by the Michigan PSC — a regulatory agency without an explicit mandate to consider climate change — stands in stark contrast.

In April of 2020, Enbridge Energy applied to the Michigan PSC for approval to replace a four-mile segment of "Line 5," a 645-mile interstate oil and gas pipeline that has run through Michigan from Wisconsin to Ontario, Canada, since 1953.¹¹¹ Enbridge filed a motion in limine to exclude evidence demonstrating Line 5's adverse impact on climate change, arguing it was beyond the scope of the proceeding.¹¹² The administrative law judge agreed with Enbridge and concluded the Michigan PSC lacked jurisdiction to consider the GHG emissions.¹¹³ On appeal to the Commission, the Michigan PSC Staff also supported

¹⁰⁸ *Id.* at 23–24; *see also id.* at 22 ("The opposition parties acknowledge that denying a permit in this docket will not, by itself, reduce demand for petroleum products or stop climate change.").

¹⁰⁹ Motion to Recuse at 1, Dakota Access, LLC, No. HLP-2014-0001 (Iowa Utils. Bd. Feb. 17, 2016).

¹¹⁰ Order Denying Motion to Recuse at 3–4, Dakota Access, LLC, No. HLP-2014-0001 (Iowa Utils. Bd. Feb. 18, 2016).

¹¹¹ Order at 1, 4, 5, Enbridge Energy LP, No. U-20763 (Mich. Pub. Serv. Comm'n Apr. 21, 2021).

¹¹² *Id.* at 8, 33.

¹¹³ *Id.* at 27.

Enbridge and the administrative law judge, urging the Commission to reject authority.¹¹⁴

The Commission disagreed. In contrast to the arguments made by Enbridge, the administrative law judge, and the Commission's own staff, the Commission reasoned that it could not "separate the construction of the Replacement Project from the reason for doing so."¹¹⁵ Under the state's equivalent to the National Environmental Policy Act, the Commission concluded that it had a mandate to assess "the alleged pollution, impairment, or destruction of the air, water, or other natural resources."¹¹⁶ When faced with the question of whether such environmental review included downstream emissions, the Michigan PSC stated: "While some would narrowly constrain the review of pollution to the construction of the tunnel and pipeline, such an interpretation is untenable."¹¹⁷ And so, unlike its counterparts in other states, the Michigan PSC refused to apply a myopic scope to its authority, considering downstream GHG emissions and their resulting climate impacts. Ultimately, the juxtaposition of the reasoning of Michigan's PSC and Iowa's Utility Board indicates a PSC's consideration of climate change can be a matter of will more than authority.

C. *In Search of Solutions*

Although this Chapter attempts to summarize national trends in electric utility law, the story of each state's PSC is admittedly unique. The agenda of a state PSC may not always match a state's political goals. As already shown, a state looking to address climate change can be undermined by an inflexible PSC.¹¹⁸ In contrast, a state with a fossil-fuel driven economy keen to slow renewable energy development can likewise be thwarted by a PSC loyal to its traditional economic mandate.¹¹⁹ To be sure, some state PSCs have risen to meet the climate

¹¹⁴ *Id.* at 34.

¹¹⁵ *Id.* at 64.

¹¹⁶ *Id.* at 65 (quoting MICH. COMP. LAWS ANN. § 324.1705(2) (West 2021)).

¹¹⁷ *Id.* at 64.

¹¹⁸ For discussions on Maryland's and Hawaii's PSCs, see *supra* ch. IV, section B.1.a, pp. 1624–26; ch. IV, section B.2.a, pp. 1628–30.

¹¹⁹ When faced with the high costs of coal, the Wyoming PSC chief counsel defended coal plant closures before a concerned state legislature, explaining: "The commission evaluates proposals for whatever [utilities] are going to do under the framework of our overall mission, which is to make sure that there's safe, adequate and reliable service at just and reasonable rates." Andrew Graham, *The Wyoming PSC's Uncomfortable Moment in the Spotlight*, WYOFILE (Nov. 19, 2019), <https://wyofile.com/the-wyoming-pscs-uncomfortable-moment-in-the-spotlight> [<https://perma.cc/Z8PX-SACJ>] (alteration in original). Not to be outmatched, the Wyoming legislature thereafter passed HB 200, mandating utilities to produce a certain percentage of their electricity with carbon-capture technology, refusing to allow utilities to recover costs of retired coal plants until they meet that specified percentage, and ensuring cost recovery from ratepayers for carbon-capture technology for utilities. See WYO. STAT. ANN. §§ 37-18-101 to 102 (West 2021). For a thoughtful piece on the

challenge, especially when doing so aligns with the political will of their state's electorate and government,¹²⁰ and vice versa.¹²¹ Understanding the challenge with state PSCs and climate change requires an awareness of the political backdrop of climate change in the United States. This Chapter, of course, does not attempt to resolve the politicization of the environment and climate change.¹²² Rather, it addresses those states looking to make impactful progress on climate change yet thwarted by their own institutional bureaucracy.

Some scholars have proposed policy solutions aimed at incorporating climate considerations into PSCs' traditional planning processes. Scott suggests states could mandate long-term resource planning that includes environmental risk management and analyses — or “teach an old dog new tricks,” so to speak.¹²³ And, as discussed, many states are instructing their PSCs to explicitly consider climate change.

As the adage cautions, the difficulty is often with the dog, not the tricks. Solutions that aim to incorporate climate consideration into the existing PSC processes overlook the fundamental issue — the ingrained resistance of an agency with a century-old economic bias. Directing the

real-world socioeconomic impacts of coal plant closures on local Wyoming citizens, see Cooper McKim, *Coal Community Prepares for Future with Potential Plant Closure*, WYO. PUB. RADIO (May 31, 2019, 4:56 PM), <https://www.wyomingpublicmedia.org/open-spaces/2019-05-31/coal-community-prepares-for-future-with-potential-plant-closure> [https://perma.cc/HGL5-WDSJ].

¹²⁰ As an example, in 2021, the Connecticut Public Utilities Regulatory Authority issued an order and called the present day an “all hands on deck moment,” refusing to shift climate change–induced storm-related costs onto its ratepayers. Decision, *Investigation into Elec. Distr. Cos.’ Preparation for & Response to Tropical Storm Isaias* at 1, No. 20-08-03 (Conn. Pub. Utils. Regul. Auth. Apr. 28, 2021).

¹²¹ Some PSC commissioners have openly used their skepticism of climate change to win elections. Perhaps most notoriously, Alabama Commissioner Chris “Chip” Beeker, who gained political backing when his predecessor questioned the Commission’s continued support of an increasingly costly coal industry, publicly equated climate change to “unicorns and little green men from Mars” in his campaign for election to the Commission in 2013. See Chip Beeker, *Why I’m Running for the Alabama Public Service Commission (Chip Beeker)*, YELLOWHAMMER (Sept. 13, 2013), <https://yellowhammernews.com/why-im-running-for-the-alabama-public-service-commission-chip-beeker> [https://perma.cc/E7LW-EYGS]; The Associated Press, *After 30 Years, Pushback for Southern Co. in Alabama*, AL.COM (Mar. 7, 2019, 12:18 AM), https://www.al.com/live/2013/08/after_30_years_pushback_for_so.html [https://perma.cc/7559-8KZW]; Tim Howe, *Beeker Seeks Reelection — “It’s Crucial to Me to Fight on Behalf of Hard-Working Alabamians,”* YELLOWHAMMER (July 7, 2021), <https://yellowhammernews.com/beeker-seeks-reelection-its-crucial-to-me-to-fight-on-behalf-of-hard-working-alabamians> [https://perma.cc/3GMR-6GGJ]; see also *supra* p. 1627 (discussion on Montana PSC).

¹²² Lest we forget, a little over a decade ago, “lifelong Republican” Newt Gingrich and “lifelong Democrat” Nancy Pelosi sat on a couch together and informed the American public that they “do agree our country must take action to address climate change.” *WeCanSolveIt.org Ad — Gingrich & Pelosi*, POLITICO (May 13, 2011, 2:03 PM), <https://www.politico.com/video/2011/05/wecansolveitorg-ad-gingrich-pelosi-018436> [https://perma.cc/6DVG-YX8T].

¹²³ Scott, *supra* note 34, at 401.

agency to consider climate impacts faces many of the same struggles observed at the federal level.¹²⁴ As examples such as the Hawaii PUC and Iowa Utilities Board suggest, forcing a state PSC to consider the climate does not always result in a thoughtful analysis of the impacts — nor a change in outcomes.

To meaningfully evolve a state's energy decisionmaking process to account for climate change in the long term, states must reshape a longstanding institutional culture. But of course, climate action is needed now. And so, in the short term, state leaders should counteract existing institutional bias by instituting clean energy mandates.

I. The Long-Term Solution: Unlearning a Century of Institutional Bias. — State PSCs are conservative creatures of economics by design. States created these agencies in the early twentieth century with the simple mandate to keep rates just and reasonable, long before concerns about climate change or GHGs entered the public vernacular. These “childhood” years of the agencies fundamentally impact their long-term culture and mission.¹²⁵ For over a century, state PSCs have developed case law, perfected internal quasi-judicial procedures, reviewed technical financial reports and projections, and hired experts, all with an eye on keeping customers' lights on and electricity rates down — precisely as they were instructed. The agencies' conservative mandate has in turn attracted professionals supportive of the traditional mission, reinforcing the conservative economic bias.¹²⁶

To expect such agencies to solve the climate crisis suddenly, or even consider technical climate impacts when making decisions, is admittedly unfair. Indeed, PSCs across the board continue to be “wary” of the costs of grid-modernization proposals necessary to prepare for climate impacts, approving less than ten percent of the requested funding for such projects.¹²⁷ But there is no other choice — the climate crisis cannot be

¹²⁴ This same mismatch between traditional mandate and new social movement exists at the federal level. See generally Jody Freeman, *The Uncomfortable Convergence of Energy and Environmental Law*, 41 HARV. ENV'T L. REV. 339 (2017). The Federal Energy Regulatory Commission, an economic agency with a comparable mission to state PSCs, *id.* at 347, has similarly resisted abandoning its traditional mandate to experiment with progressive grid design and regulation, *id.* at 385. Despite the clear connection between energy and the environment, *id.* at 358–59, the federal agency has refused to regulate with environmental protection as an end goal in itself, with no signs of change in the future, *id.* at 386.

¹²⁵ See JAMES Q. WILSON, BUREAUCRACY 68 (1989).

¹²⁶ *Cf. id.*

¹²⁷ Herman K. Trabish, *Duke, SCE, Other Grid Modernization Proposals Faced Big Cost Questions, More Regulator Scrutiny in 2021*, UTIL. DIVE (Jan. 4, 2022), <https://www.utilitydive.com/news/duke-sce-other-grid-mod-proposals-confronted-big-cost-questions-in-2021-a/610977/> [<https://perma.cc/ZP9V-3X7D>] (“There were 498 grid modernization-related policy and deployment actions in 48 states in Q3 2021, but regulators approved only \$904.4 million of the \$14.7 billion in proposed utility investments.”). Of the unaccepted funds, “\$12.7 billion was held for closer scrutiny, with \$1.1 billion rejected.” *Id.*

solved without the modernization of the country's energy grids, and as it stands, state PSCs hold the keys.

The unlearning of any agency's institutional culture is challenging, but not impossible. This country has a history of agency recalcitrance in the face of new social mandates.¹²⁸ But change has happened; agencies have evolved.¹²⁹ Achieving an institutional culture shift requires explicit climate-related directives, workable objectives, and external support from the agencies' allies in all three branches of government.

(a) *Explicit Directives.* — Despite the existing beliefs and attitudes of present-day commissioners, clear mandates coupled with effective enforcement and incentives can influence an agency's internal direction.¹³⁰ There is a growing trend of states updating their state PSCs' governing laws to clearly require consideration of climate impacts. This is an important step in the right direction. At minimum, it provides a clear legislative intent and gives environmental advocates and PSCs a platform to stand on when promoting investment in renewable energy. But as this Chapter has exposed, explicit directives on their own are insufficient to change century-old habits. Without more, PSCs will continue to err on the side of economics over the environment.

(b) *Workable Objectives.* — Regardless of an agency's willingness and authority to act on a particular goal, a new objective for an agency will only survive so long as it is achievable.¹³¹ To be workable, a goal must have identifiable targets. And critically, the agency must have the resources and expertise necessary to make technical and well-educated decisions about how to attain these targets.

Currently, many state PSCs do not have access to independent environmental or climate-specific expertise. Such a deficit forces PSCs to rely on utility companies and intervenors for information and proposed methods for understanding the impacts of energy decisions on the climate. This was evident in the Hawaiian PSC decision, which simply adopted the utility's proffered modeling and analysis about GHG

¹²⁸ See, e.g., Joy Milligan, *Subsidizing Segregation*, 104 VA. L. REV. 847, 916–18 (2018) (describing how the Office of Education undermined *Brown v. Board of Education* by prioritizing its primary mission of funding public education and rejecting authority to combat school segregation).

¹²⁹ *Id.* at 924 (explaining how civil rights legislation overhauled a resistant federal agency's mission and institutional structure by providing clear authority, injecting civil rights officials into the agency with tangible financial support to carry out their new social mandate). Cf. WILSON, *supra* note 125, at 72–74 (explaining how the governing statute and professional expertise in the Tennessee Valley Authority caused the energy regulator to go from being hailed by liberals as an exemplar of “grass-roots democracy” and the “crown jewel of the New Deal era” to being viewed “as a ruthless and insensitive power company that in its single-minded devotion to generating electricity was despoiling the environment and that in its obsession with nuclear power was risking catastrophe,” *id.* at 72).

¹³⁰ Cf. WILSON, *supra* note 125, at 54.

¹³¹ *Id.* at 56.

impacts.¹³² A similar phenomenon is playing out in PSCs' calls for investigations to achieve states' net-zero goals — the onus is on the utility to provide the information and the solutions.¹³³

PSCs should take greater advantage of states' existing environmental resources. For example, every state has its own environmental expert agency, and states could require approval or joint decisionmaking between the two agencies. Reallocation of that expertise from environmental agencies to in-house PSCs could eliminate potential stakeholder and institutional bias. Some states, such as Connecticut, already involve multiple agencies in the process of approving a new power plant, aiming to incorporate a neutral decisionmaker.¹³⁴

Another option is for states to prioritize renewable energy backgrounds when appointing PSC commissioners. The professional backgrounds of agency leaders and staff influence an institution's goals.¹³⁵ Moreover, a single commissioner's vote has the potential to sway the institutional direction of the agency because only a handful of commissioners comprise PSCs.¹³⁶ Presently, many state laws provide little to no guidance about the selection process of a state's PSC commissioner.¹³⁷ Yet there is precedent for incorporating more substantive qualifications,¹³⁸ and so a hypothetical law could require at least one PSC commissioner to be selected with regard to their qualifications and experience in climate science and/or renewable energy. Although not

¹³² *In re* Haw. Elec. Light Co., Inc., 445 P.3d 673, 696 (Haw. 2019).

¹³³ In response to Maryland's new law mandating consideration of climate change, the Maryland PSC has notified its docket participants of the new statutory factors and requested participants address these factors in their application and testimony before the PSC. See Md. Pub. Serv. Comm'n, Notice of Consideration of New Statutory Factors (Oct. 6, 2021), <https://www.psc.state.md.us/wp-content/uploads/Notice-of-Consideration-of-New-Statutory-Factors.pdf> [<https://perma.cc/39PR-BHSP>].

¹³⁴ See *About Us*, CONN. SITING COUNCIL, <https://portal.ct.gov/CSC/Common-Elements/Common-Elements/Connecticut-Siting-Council--Description> [<https://perma.cc/K495-P5SU>] ("The Council is responsible for . . . balancing the need for adequate and reliable public utility services at the lowest reasonable cost to consumers with the need to protect the environment and ecology of the state . . .").

¹³⁵ See WILSON, *supra* note 125, at 63–65 (describing how the professional backgrounds of the people hired shaped the diverging missions of the U.S. Forest Service and the National Park Service).

¹³⁶ For example, Wisconsin's PSC voted 2–1 to open a docket to determine how it will achieve a 100% clean energy future, and Montana's PSC voted 3–2 to deny a motion to consider a forum on climate change. Danielle Kaeding, *State Regulators Seek a Roadmap Toward a Clean Energy Future*, WIS. PUB. RADIO (Mar. 12, 2021, 6:05 AM), <https://www.wpr.org/state-regulators-seek-roadmap-toward-clean-energy-future> [<https://perma.cc/RYE4-JSRW>]; see *supra* p. 1627 (discussing Montana's PSC).

¹³⁷ For example, Georgia law qualifies any disinterested elector thirty years or older to become a commissioner, "without regard to his experience in law or in the utility or transportation business." GA. CODE ANN. § 46-2-2 (West 2021).

¹³⁸ For example, all three Rhode Island commissioners must be selected "with regard to their qualifications and experience in law and government, energy matters, economics and finance, engineering and accounting." 39 R.I. GEN. LAWS ANN. § 39-1-4 (West 2021).

sufficient on its own, bringing in climate-related expertise will better enable PSCs to consider the long-term costs of climate change.

(c) *Support from External Allies Within the Government.* — Finally, to succeed in their new mandates, state PSCs will require the support and encouragement of all three branches of state government. External support is a key factor in the survivability of an agency's new goals.¹³⁹ The state's executive and legislature should provide direction through executive orders and statutes, while the state's judiciary plays backstop, reinforcing the agency's climate-friendly decisions. Thus, litigation and advocacy will continue to play an important role to hold the agencies accountable to their new climate mandates.

2. *The Short-Term Solution: Clean Energy Standards.* — A century's worth of unlearning is possible and necessary, but it is not going to happen overnight. Due to decades of decisionmaking without consideration of climate impacts, changes to electric infrastructure are long overdue. Clean energy standards provide a straightforward, workable, and enforceable short-term solution. These standards require state utilities to distribute or generate a percentage of their energy from renewable sources by a certain date. Although blunt policy tools, clean energy standards serve as a springboard for the modernization of the U.S. electricity grid as well as a shift in state PSC institutional norms.

Increasingly more states are implementing clean energy standards at increasingly higher percentages. Today, twenty states, D.C., and Puerto Rico have 100% clean electricity targets,¹⁴⁰ with other states currently considering similar 100% legislation.¹⁴¹ These state clean energy standards range in type and target. The goal years range from 2030 through 2070, and the metrics vary between renewable energy and carbon free (which could include fossil fuels in combination with carbon sequestration).¹⁴² The standards can be mandatory or purely aspirational, with most being authorized either through legislation or executive order.¹⁴³ Arizona presented a unique situation, where its own PSC initiated a rulemaking to impose a 100% carbon-free standard by 2070.¹⁴⁴ After years of negotiation and work on the rule, the Arizona Corporation

¹³⁹ See WILSON, *supra* note 125, at 56.

¹⁴⁰ *100% Clean Energy Collaborative — Table of 100% Clean Energy States*, CLEAN ENERGY STATES ALL., <https://www.cesa.org/projects/100-clean-energy-collaborative/guide/table-of-100-clean-energy-states> [https://perma.cc/54A5-NH4W].

¹⁴¹ See H.F. 278, 92d Sess. (Minn. 2021), https://www.revisor.mn.gov/bills/text.php?number=HF278&type=bill&version=0&session=1s92&session_year=2021&session_number=0 [https://perma.cc/SV2L-SZJH] (proposing carbon-free energy by 2040).

¹⁴² CLEAN ENERGY STATES ALL., *supra* note 140.

¹⁴³ *Id.*

¹⁴⁴ Iulia Gheorghiu, *Arizona Regulators Revive Energy Rules Package, Propose 100% Clean Energy by 2070*, UTIL. DIVE (May 28, 2021), <https://www.utilitydive.com/news/arizona-regulators-revive-energy-rules-package-propose-100-clean-energy-b/600985/> [https://perma.cc/KH57-WE0L].

Commission ultimately voted against its final rule 3–2 along partisan lines, leaving the state without a 100% clean energy standard.¹⁴⁵

One of the greatest criticisms of state legislatures implementing clean energy standards is that they are blunt policy tools that fail to incorporate agency expertise and provide little flexibility to adapt to changing technologies and future circumstances.¹⁴⁶ After all, it is not the most cost-effective carbon-reduction policy.¹⁴⁷

Although imperfect, a clean energy standard appears to be a politically palatable,¹⁴⁸ effective,¹⁴⁹ and impactful start. This past year, in direct response to the Governor's Executive Order, the Wisconsin PSC initiated a docket to investigate how it will achieve 100% renewable energy.¹⁵⁰ This is, of course, the same PSC that rejected authority to consider GHG emissions in its order in 2020,¹⁵¹ and voluntarily cut any mention of climate change from its PSC website in 2017.¹⁵² As a result of these renewable energy mandates, state PSCs and the utility companies they regulate across the country have been forced to put forward resource plans that prove to state legislators how they will achieve net-zero carbon energy by a set date, regardless of any traditional economic balancing.¹⁵³

¹⁴⁵ Ryan Randazzo, *In Major Reversal, Arizona Utility Regulators Kill 100% Clean-Energy Rules in the State*, ARIZ. REPUBLIC (Jan. 26, 2022, 12:55 PM), <https://www.azcentral.com/story/money/business/energy/2022/01/26/arizona-corporation-commission-votes-down-carbon-free-energy-rules-3-2/9227048002/> [<https://perma.cc/2TW0-Y8VH>].

¹⁴⁶ See Scott, *supra* note 34, at 377 (“This option also bypasses the wealth of experience, knowledge, and wisdom within the current agency system. The creativity and practical know-how of the country’s regulatory commissions could offer significant and important input on how change might be achieved at reasonable cost.”).

¹⁴⁷ Erik Paul Johnson, *The Cost of Carbon Dioxide Abatement from State Renewable Portfolio Standards*, 36 RES. & ENERGY ECON. 332, 350 (2014) (estimating the cost of CO₂ abatement through renewable portfolio standards is “nearly four times more expensive than the maximum price of CO₂ under [a] regional cap-and-trade program”).

¹⁴⁸ *Id.*

¹⁴⁹ Galen Barbose et al., *A Retrospective Analysis of Benefits and Impacts of U.S. Renewable Portfolio Standards*, 96 ENERGY POL’Y 645, 648–49 (2016) (reporting renewable portfolio standards resulted in 59 million metric tons of CO₂ reductions and \$5.2 billion in health and environmental benefits in 2013); see also Alex Hollingsworth & Ivan Rudik, *External Impacts of Local Energy Policy: The Case of Renewable Portfolio Standards* 25 (Iowa State Univ. Dep’t of Econ., Working Paper No. 16012, 2016) (estimating that a 1% increase in a single state’s renewable portfolio standard results in up to \$100 million in avoided damages in the United States from reduced pollution).

¹⁵⁰ Order, Roadmap to Zero Carbon Investigation, No. 5-EI-158 (Wis. Pub. Serv. Comm’n Sept. 23, 2021).

¹⁵¹ See *supra* pp. 1626–27.

¹⁵² See Lee Bergquist & Thomas Content, *Wisconsin’s PSC Also Cut Climate Topics from Site*, MILWAUKEE J. SENTINEL (Jan. 14, 2017, 6:30 PM), <https://www.jsonline.com/story/news/politics/2017/01/13/wisconsins-psc-also-cut-climate-topics-site/96534414/> [<https://perma.cc/62PT-53HC>].

¹⁵³ See, e.g., Nevada Power Company Integrated Resource Plan Vol. 4, No. 21–06 (Nev. P.U.C. June 1, 2021) (citing Nevada’s recent legislation increasing the state’s net-zero carbon goal to 100% by 2050 and providing a plan as to how the company will meet the state’s green energy policies); S.B. 2408, 102d Gen. Assemb. 249, 710–12 (Ill. 2021) (requiring large utility companies to submit a multiyear integrated grid plan to ensure coordination with the state’s environmental and climate goals, including its goal of 100% clean energy by 2050).

Moreover, clean energy standards check all the boxes for kickstarting a shift in agency culture. The standards provide explicit directives, laying out a numerical target by a specific date. The standards also are feasible with the given tools — PSC commissioners do not require climate expertise or additional resources to simply make 100% renewable energy decisions. And finally, the standards are supported by other branches of government, namely, the ones enacting the standards.

In a sense, clean energy standards are legislative overrides on PSCs' vetoes over the future of the energy grid. Although this could be cause for concern, tipping points in environmental regulatory history have produced equally blunt and idealistic mandates but resulted in periods of incredible technological innovation. Progress to date proves that renewable energy innovations are around the corner and within grasp. As the climate continues to warm and PSCs continue to ignore the problem, today is one of those tipping points.

Conclusion

The climate is changing and so must our energy regulators. For decades, state PSCs have made decisions about our electricity grid without consideration of the climate impacts. Today, we are suffering the consequences, yet state PSCs continue to deny regulatory responsibility for solving the problem they helped exacerbate. In the long run, policy reform must aim to shift state PSCs' institutional cultures through explicit climate-related directives and workable objectives, with encouragement from all three branches of government. But in the short term, state legislatures and governors should institute clean energy standards to redirect the trajectory of century-old agencies towards modern-day climate goals.