## BOOK REVIEWS

***The Great Texas Oil Heist***, by Robert Cargill (Stephen F. Austin State University Press, 2021). 192 pages, ISBN 978-1-62288-402-5.

Crime novels and true crime stories are a bookstore staple. Many long airplane rides, beach vacations, and cold winter nights have passed amiably with the self-indulgent pleasure of a pot-boiler. Rarely, if ever, does that genre intersect with energy economics. This account of unauthorized directional drilling under the East Texas field ("The Black Giant") in the late 1940s and 1950s is likely the only plausible true crime account that has a direct bearing on issues of energy economics.

Robert Cargill is a retired academic chemist who clearly took on this project as a personal passion, having lived through it as a close but uninvolved observer. He delivers a gripping account of the events leading up the discovery of the scheme to drill under adjoining leases and produce oil illicitly. The historical events might seem to have no bearing today, given that they concluded nearly 60 years ago and all of the key actors are dead. Yet the issues of resource theft, regulatory capture and corruption, and the application of technology to solve problems are relevant today as are the events in East Texas.

Natural resource and energy economics recognizes the centrality of common pool problems. Overlying owners potentially imposing a pumping externality on one another is a classic example. In this case, owners of adjoining leases outside the common pool allegedly drilled directional or "slant" wells into the rich deposits of the eastern edge of the East Texas oil field. That was not the only necessary feat, however, because the oil flowing to the surface needed to be marketed without raising alarms, and concealed in order to remain below allowable prorationing thresholds that would otherwise attract alarm. The matters of concealment – such as the miles of additional and unpermitted well pipe that were needed – and the breadth of the conspiracy required to sustain such a scheme were impressive

Cargill starts the book answering the door of his parent's house on a Saturday morning in April 1962. He was in transit between a post-doc in Berkeley and his first academic job at the University of South Carolina. When he opened the door, "I found a seven-foot giant with a chiseled face and piercing gray eyes. He was wearing a 10-gallon Stetson, had .45 on his hip, and had the signature Cinco Peso badge of a Texas Ranger displayed on his white shirt." (p. 11) The Ranger was looking for Cargill's father, a local oilman suspected of participating in the scheme.

One of the primary subplots of the story is the struggle between Big Oil vs. Little Oil. Big oil companies like Humble, Sun, and Continental owned and operated wells in the fairway of the East Texas field. Such Big Oil dominance spurred local resentment of the distant corporations controlling the most productive acreage. The slant drillers were mostly small local companies, which understood that local workers and suppliers might be willing to support their efforts in deference to large absentee operations. Certainly as proceedings moved into East Texas courtrooms, attorneys for Big Oil and prosecutors were surprised at the proclivity of local judges and juries for finding that cheating Big Oil out of a few barrels was hardly cheating at all. Owning interests in the slant wells may have affected the reasoning of some of the lawyers and judges in those cases.

Is there a larger takeaway from this book, or is it just an historical curiosity and enjoyable rabbit hole for a reader? Cargill addresses the question directly in his epilogue: "I wanted to provide a detailed case study of a grand theft that involved hundreds of individuals…These men took advantage of East Texas geology and state laws that made the theft inevitable." (p. 186) Understanding what happened as a result is important to comprehending the nonchalance with which today's industry regards drilling long laterals and extraction over large areas. First, today's measurement technology is far superior, perhaps in response to the difficulty of answering questions about where, exactly,

wells were bottomed in the early 1960s. Second, the perverse drilling incentives provided by well prorationing regulations, which are now an artifact of history in Texas, highlights the unintended consequences of regulation even today. Third, the bar of providing verifiable proof of resource theft is high, with important implications for security of mineral property around the world. When many parties can potentially access a resource, common pool issues are likely to predominate without careful intermediation. Fourth, market power issues complicate impacts as illustrated by the case of Big Oil buying "hot oil" to refine from operators who are illicitly producing from Big Oil reservoirs. This illicit transfer cooled the "hot oil" enough to fit under the state prorationing limits.

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***Short Circuiting Policy,*** by Leah Cardamore Stokes (Oxford University Press, 2020). 336 pages, ISBN: 9780190074258 hardback, 9780190074265 paperback.

Federal tax credit policies have provided a substantial economic boost to renewable power and the US Department of Energy with its national labs has provided critical research and analysis. However, for the last two decades, development of renewable power policy in the United States has, with a few exceptions, occurred mostly at the state level. States have provided valuable spaces for policy exploration and implementation.

The first two chapters explain the interest group-driven theory of policy change and the related conceptions of policy feedback, lock-in, retrenchment, and policy uncertainty that are central to her account. Her method is to apply the theories and concepts in an interpretive account of state policy development and evolution, focusing on cases in which policies were established and could have become locked in but rather were repealed or cut back.

Chapter 3 recounts the intertwined histories of economic regulation and the electric power industry over the course of the twentieth century. The development of renewable energy policies, which took off in the 1990s, came at a time when the electric power regulation itself was being restructured. Restructuring, intended to inject efficiency-enhancing market forces into the electric industry, may seem at odds with policies intended to promote specific technologies independently of cost. However, renewable standards have proven to be relatively congruent with competitive wholesale power markets, at least in comparison to other state subsidy policies.[1]

The discussion may be good enough for purposes of setting the background for the five substantive chapters that follow. However, more care in the explanation of federal and state roles in implementing the Public Utilities Regulatory Policy Act of 1978 (PURPA) would have been useful given the significance of that policy both for renewable energy development and for electric industry restructuring more generally. A clearer focus on the federal-state jurisdictional split may have also helped readers understand the way in which state renewable energy policies interact with federal transmission policies.

Chapters 4 and 5 address renewable power policies in Texas, exploring first the success in establishing an RPS and second the failure of efforts to create a solar power carveout. Initial efforts to promote an RPS foundered against the opposition of established electric utilities. An effort to establish competitive retail electric power markets in Texas, supported by the state's governor and key legislators, provided the right opportunity for action. Pro-market conservatives were willing to

1. Howland, Ethan. "ISO-NE plan to extend MOPR through 2024 faces uncertain fate at FERC, experts say." Utility Dive, February 9, 2022. https://www.utilitydive.com/news/iso-ne-extend-mopr-uncertain-fate-ferc-new-england-renewable/618556/; Howland, Ethan. "FERC orders PJM to scrap 'adder' mechanism seen bolstering capacity prices." Utility Dive, January 21, 2022. https://www.utilitydive.com/news/ferc-orders-pjm-to-scrap-adder-mechanism-capacity-prices-gas-cyber/617487/

accept a modest RPS along with consumer protections sought by progressive state legislators, and the coalition was sufficient to overcome utility opposition to the changes. Success of the RPS and subsequent dramatic growth of wind energy gets attributed to the "fog of enactment." This fog is the result of the uncertainty facing stakeholders regarding the ultimate formulation and consequences of newly enacted policies.

Stokes characterizes the failure of solar industry advocates to embed a 500 MW non-wind carveout in the RPS as "opponents blocked progress on solar energy." (p. 109) Advocates for the solar carveout within the RPS believed they had achieved a victory, but legislative language was crafted in a way that later allowed opponents to the carve out to claim it was a voluntary target rather than mandated goal. Regulators ultimately agreed with opponents, and the solar carveout fell short.

The next three chapters address cases of "policy retrenchment." Chapter 6 examines efforts to undermine an RPS law passed in Kansas in 2009 along with targeted tax breaks supporting renewable energy development. Over the subsequent decade, even as the policy fostered growth of wind energy, opponents slowly overcame the influence of renewable advocates and secured the unwinding of substantial policy benefits.

Chapter 7 focuses on Arizona's contentious struggle over net metering policy after that policy was put in place in 2008. Arizona had decades of experience with relatively modest, mostly ineffective renewable power programs, so perhaps utilities did not anticipate the subsequent popularity of net metering options. Growth of the programs began to undermine utility revenue structures, leading the utilities to undertake what turned into a high-stakes political battle to contain what utilities saw as a threat.

Chapter 8 discusses efforts in Ohio to undermine the state's RPS. Ohio, as in Texas and other states, packaged renewable energy supports with broader electric industry restructuring legislation. However, unlike the earlier efforts, by the time Ohio's RPS policies were enacted in 2007, opponents were prepared to fight back. As in Kansas, opponents of RPS policies in Ohio kept pressure on to weaken or repeal the law through several years without success. Ultimately opponents managed to slow development through a low-profile change increasing wind-turbine setbacks, and a few years later opponents succeeded in cutting back RPS goals.

The final chapter takes on two tasks. After a brief discussion of renewable power and climate policies, the chapter offers reflections on the political theories she applied in the five substantive chapters. Stokes describes the value and limits of explanations relying on path dependence and describes the interplay of interest group and citizen activation in the context of renewable power policy change.

Leah Stokes provides detailed accounts of political battles in four states—Texas, Ohio, Kansas, and Arizona—that have seen both advances and retrenchment of policies supporting renewable power. The book presents itself as concerned with theories of policy change in political science, but it becomes clear Stokes is at least as interested in taking sides in policy debates as in developing political theory. The result is a useful but flawed look at state renewable energy policymaking.

The author's bias diminishes the value of the book. There appear to be several small errors in the book, each mostly inconsequential, but mistakes have not been randomly distributed. No error made climate policy advocates appear less competent or renewable technologies less promising; no error made opponents of climate policies appear more competent or well intentioned. Errors did make renewable power policies appear more consequential; errors did make an opponent of such policies appear biased or incompetent.

The first such error occurs in the first paragraph of page one, making the Texas Renewable Portfolio Standard (RPS) appear more effective than it was. Stokes claimed the Texas RPS, enacted in 1999 and implemented in 2002, enabled Texas to obtain 12% of its power from wind energy just a "decade into the policy experiment." The cited article (Hurlbut, 2008) was published before the

decade was up and does not report the 12% figure. EIA data indicates Texas first generated 12% of its electric power from wind energy in 2016, 17 years after the law passed.[2]

The Ohio chapter attempts to rebut a politician's 2013 claim that wind energy would cost 22 ¢/kWh in the state. Stokes wrote, "In fact, Ohio wind projects were built around 4.3 ¢/kWh in 2013," citing the *2013 Wind Technologies Market Report* (WTMR). However, the 2013 WTMR does not include Ohio-specific wind project costs. A figure in the report shows a 4.3 ¢/kWh value for Power Purchase Agreements (PPA) for Great Lakes region wind plants in that year, but the authors explicitly state that PPA values cannot be interpreted as reflecting costs. The politician may have been wrong, but Stokes' apples-and-oranges comparison does not make her case.

The author's bias also shows in a discussion of econometric studies of renewable power policies. When discussing two papers critical of the effectiveness of RPS policies (Greenstone and Nath, 2019; Upton and Snyder, 2017) Stokes remarked "these research papers have flaws." (p. 25). She explained, "there are significant challenges with using econometric techniques to estimating policy effects." Without any indication of irony, she then cited favorably an economic study heavily reliant on econometric analysis focused on the benefits of an RPS (Dimanchev et al. 2019).

Some errors were merely neutral. Stokes claimed that in the Energy Policy Act of 1992 (EPACT), Congress "allowed states to choose whether they would implement retail competition." The law enabled the Federal Energy Regulatory Commission to require transmission owners to provide wholesale wheeling of electric power but did not address existing state authority over retail rates. States already had authority to consider retail competition.

The author's focus is on political interaction rather than policy analysis, she says, explaining that she is not concerned with policy effectiveness. (p. 23) This choice seems to weaken the overall project. Both key clean energy policies examined—renewable portfolio standards and net metering—have been challenged on the grounds they are ineffective means to achieving climate goals. The policies have been defended against these charges, too. It is an active debate, critical to progress, and trivialized by being reduced to a political story of public-spirited "advocates" versus industry-funded "opponents."[3]

Despite these errors and limitations, the discussions of energy policymaking in the states provide useful background to economists studying state energy policies and to policy analysts hoping to promote their own positions. The chapters are replete with stories of industry influence, citizen engagement, and legislative maneuvering. Greater awareness of political functioning may prove useful to economists enamored of idealized policy proposals.

Finally, she ends with practical advice to renewable power policy advocates. "The battle for clean energy is not yet over," Stokes writes, in one of the frequent "politics as combat" metaphors employed in the book. (p. 228) She writes of "organized combat between interest groups," "policy battles," and "capturing the spoils" from policy victories. (p. 5) "We have not yet lost the war against climate change," she says, but "we must be ready to fight." (p. 228) While at first the combat metaphors appeared to be rhetorical flourish, by the end it was clear that Stokes considers climate policy the moral equivalent of war.

The "we" was no accident either. There *is* a battle over climate policy, in her view, with interest groups that profit from pollution on one side and advocates for progress on the other. Her sometimes stark good vs. evil framing may be off-putting to readers who do not share her worldview, but perhaps that is an intended effect. The scholarly aims announced in her first two chapters receive substantial attention in the conclusion, but the primary goal of the final chapter is to present a call to arms for like-minded advocates.

2. US EIA, Electricity Data Browser, URL: https://www.eia.gov/electricity/data/browser/#/topic/0?agg=2,0,1&fuel=vvo&geo=g000000002&sec=g&linechart=~ELEC.GEN.ALL-TX-99.A~ELEC.GEN.WND-TX-99.A&columnchart=ELEC.GEN.ALL-US-99.A&map=ELEC.GEN.ALL-US-99.A&freq=A&start=2001&end=2021&chartindexed=0&ctype=linechart&ltype=pin&rtype=s&pin=&rse=0&maptype=0, visited March 20, 2022.

3. The research is discussed in Cleary, Fischer, and Palmer (2021).

If, as Elinor Ostrom (2014) concluded from her look at the politics of the global commons, progress on climate policy requires a polycentric approach, then policy efforts at international and national levels are complements rather than substitutes for action at the local, state, and regional levels. The analysis of Cullenwald and Victor (2020) complements Ostrom's conclusion. In *Making Climate Policy Work,* they observe attempts at broadscale national climate policies repeatedly run aground on politically salient differences across regions and industries. State and local policies are not sufficient to address climate issues, but they may be necessary.

Should Stokes' call to arms bring more policy attention to state level climate efforts, it will prove helpful even with its limitations.

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