

THE NEW MAP: ENERGY, CLIMATE, AND THE CLASH OF NATIONS

By Daniel Yergin
Reviewed by Kenneth A. Barry*

I. INTRODUCTION

It has been nine years since Daniel Yergin published *The Quest*, a panoramic examination of the energy industry—its evolution, its booms and busts, and how it propels the economic ambitions and geopolitical fortunes of governments.¹ While that book was recent enough to encompass such notable 21st century events as the early phases of the U.S. shale revolution and the movement in developed economies to reduce hydrocarbons in the energy mix, the globe keeps spinning and new events keep reshaping the energy industry and international relations. Yergin’s revisit, *The New Map: Energy, Climate, and the Clash of Nations* (2020),² is an updated grand tour of this planet’s fractious mixture of energy policies and the geopolitical aims (or anxieties) of nations.³ The roughly 425-page tome dramatizes how established and emerging nations are jostling for regional or global leadership, refocusing their dependency on conventional energy resources (whether for consumption or export), and balancing the need to tackle climate change with the demand for reliable and affordable fuels.

Yergin’s extensive research, coupled with his lucid, unfussy prose and knack for storytelling, make his books compelling for energy professionals and lay readers alike. The forty-six chapters of *The New Map* may be read as standalone profiles on global hotspots and issues, but there are common threads. The chapters are generally introduced with an anecdote that captures a pivotal moment in a nation’s economic or geopolitical development, with due attention to dynamic personalities at its center. In addition, Yergin adopts as an organizing metaphor the creation and revision of maps recurring through history—maps showing national borders as well as dominion over seas and islands (turmoil over control of the South China Sea figures prominently in one section). Often, the author closes a chapter with a “stay-tuned” observation drawing the reader into the next episode. Yet, despite his credentials as a veteran, Pulitzer Prize-winning commentator with

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1. DANIEL YERGIN, *THE QUEST: ENERGY, SECURITY, AND THE REMAKING OF THE MODERN WORLD* (2011).

2. DANIEL YERGIN, *THE NEW MAP: ENERGY, CLIMATE, AND THE CLASH OF NATIONS* (2020) [hereinafter *THE NEW MAP*].

3. For a podcast hosted by the Columbia Center on Global Energy Policy interviewing Yergin on *The New Map*, see <https://www.energypolicy.columbia.edu/new-map-energy-climate-and-clash-nations>.

multiple books to his credit,⁴ Yergin consistently refrains from intrusive narration. The notable absence of the word “I” in this volume adds to its aura of objectivity and authority.

II. HISTORY, ANCIENT AND MODERN

The New Map relates, in considerable detail, how the era of medieval exploration and subsequent wars, treaties, eruptions of terrorism, and diverse campaigns of countries to extend their spheres of influence have redrawn literal borders or pushed aside barriers by forging economic “pathways,” as modern-day China has striven to do in Southeast and Central Asia. In his Middle East chapters, Yergin gives us a vivid account of how the centuries-old Ottoman Empire was carved up into the nation-state jigsaw puzzle of today by the victors of World War I. The lead map redrawers, Britain and France, were driven by their realization that the mechanization of warfare meant access to oil would henceforth be crucial. Yet, they had to appease Woodrow Wilson’s insistence that national autonomy must replace colonial empire-building. The result was a hybrid, or some might say a hodgepodge, of arbitrarily drawn lines, with interim supervisory authority allocated to Britain or France. In time, secular Arab nationalism or Islamic fundamentalism would fray those tethers to Europe.

The diversity of characters in these dramas is dazzling. In one chapter, we meet Lawrence of Arabia seeking to promote Arab leadership against the Turks in desert battlefields as well as Chaim Weizmann, the British chemist and pioneer of Zionism, tracking down the charismatic Prince Faisal to sell him (not quite successfully) on the idea of a Jewish homeland in Palestine. A bit later, we learn how an enterprising American businessman revolutionized world trade in the 1950s by inventing container shipping.

Yergin has previously chronicled the dizzying boom-and-bust cycles of the oil business and their geopolitical impacts. His newest book relates the complex interactions, including the growth of U.S. shale oil in the last half-dozen years, the slowdown in the China economic engine, and the rising antagonisms between Shi-ite Iran and its Sunni Middle East neighbors, that led to a ruinous price war in 2015-2018. Then, just a few years after Russia and Saudi Arabia arrived at something approaching a solution, the 2020 coronavirus pandemic reared up to slam global economies, the bottom dropped out of demand, the fragile consensus among OPEC nations and Russia unraveled, and it was again every country for itself.

In this way, across the sprawling canvass of *The New Map*, the reader receives a broad education in the tumultuous history of key nations up to the present day. Yergin’s view operates generally but not always) through the prism of energy to support national economies and geopolitical ambitions in a shrinking, seemingly more antagonistic world. Because the narrative is divided into so many discrete sections, a thumbnail summary of *The New Map*’s contents is impracticable. And if the book may be described as a succession of potted histories, loosely stitched together—simply because so many countries’ particular histories and

4. Yergin was awarded the Pulitzer Prize for *The Prize: The Epic Quest for Oil, Money, & Power* (1990). See PULITZER PRIZES, THE 1992 PULITZER PRIZE WINNER IN GEN. NONFICTION, <https://www.pulitzer.org/winners/daniel-yergin>.

challenges are covered—that is not detraction. Rather, it is a tribute to Yergin’s deft ability to chronicle the background and current state of affairs in so many locations, refreshing and deepening readers’ understanding of events they may only dimly recall from headlines they read not so long ago. Those who are stimulated to learn more about a particular region or issue in more depth will find detailed endnotes in *The New Map* with numerous citations to books and articles Yergin has drawn from.

III. A GLOBAL SAMPLER

A few short excerpts may offer a flavor for Yergin’s sweeping approach and material:

- How the ISIS Offensive Challenged the Post-WWI Map of the Middle East. Yergin describes the extremist strain of fundamentalism that led to the founding of the Islamic State in Iraq and Syria (ISIS), and sums up how its aim of establishing a borderless “caliphate” in the Middle East through a ruthless military campaign staggered a region already riven with ethnic tensions: “ISIS ignited a new crisis for a region that had been rocked by turbulence for a century, arising from war and the collapse of an empire, the competition of great powers, Arab nationalism, religious fervor, ideological clash, dynastic ambitions, imperial dreams, American intervention, a Jewish state, and competition for oil. All of this would unfold in a region critical for the world’s energy – and thus to the global economy – but also at a time when confrontation between Saudi Arabia and Iran had become central to the region’s future.”⁵
- China’s Grandiose “One Belt One Road” Vision. China, *The New Map* relates, has developed a scheme (One Belt One Road) to bind together a large swath of the globe, using its financial wherewithal and commercial heft to build new trading pathways and recruit multi-national participation, with the goal of concentrating its influence. Yergin states: “The program would tie China together with all of ‘Eurasia’ – the continents of Europe and Asia seen as one vast entity – through infrastructure, energy, investment, communications, politics, and culture . . . China would be the engine of development, the partner of choice, the lead financier, the promoter, and the grand strategist.”⁶ Moreover, Yergin stresses, China’s willingness to engage with and uplift lesser economies would come with no meddlesome strings attached: “With China at the helm, there would be no agenda of ‘regime change,’ no support for ‘color revolutions,’ no championing of human rights activists. China instead would recognize and respect ‘absolute sovereignty.’”⁷

5. THE NEW MAP, *supra* note 2, at 194.

6. *Id.* at 178.

7. *Id.* at 182.

- How Iran extended its tentacles deeply into Iraq. The book extensively discusses how, in the aftermath of the second Gulf War that deposed Saddam Hussein, once the U.S. forces largely withdrew, Iran seized on the opportunity to profoundly influence Iraq and use it as a corridor to support its proxies in Syria and Lebanon. Yergin observes: “Altogether, Iran has thoroughly penetrated the Iraqi political and security structure, with [General Quassem] Soleimani⁸ as the orchestrator of it all. In 2019, seven hundred leaked Iranian intelligence cables provided granular evidence of the dense network of agents and spies, facilitated by bribes and intimidation. As one Iranian put it, ‘We have a good number of allies among Iraqi leaders who we can trust with our eyes closed.’”
- How the growth in U.S. shale oil cushioned the oil market from price shocks. Yergin describes the September 2019 drone and missile attack on Saudi oil field facilities, widely presumed to have come from Iran (despite that country’s denial of responsibility). While in past decades such a crisis would have caused a price spike in international oil markets, this time there was no such reaction, he observes, in part because the Saudis had significant oil in inventory to tide over the disruption in current production, but also because of the new prominence of U.S. shale oil (p. 288): “What also made a difference was the rebalancing of the world oil market by the continuing surge in U.S. oil. For, it turned out, shale has not only reconfigured the world oil market. It has also reconfigured the psychology of the world market, providing a new sense of security.”⁹

IV. FURTHER DOWN THE ROAD

The final 100 pages of the book (a series of chapters collectively dubbed “Roadmap”) peer into the future of the energy business and its societal ramifications. The watchword is “transition,” as Yergin appraises the potential of greener alternatives to displace conventional fuels.

Since transportation has long been oil’s preserve, Yergin kicks off this section with an examination of the origins and recent progress of electric cars (EVs). The introductory vignette involves a 2003 lunch meeting Elon Musk took with a pair of engineers, the ostensible purpose of which was to pitch Musk on electric *airplanes*. When Musk peremptorily nixed the idea, the conversation turned to EVs. At that, Musk lit up with enthusiasm, and soon was writing the engineers a check to bankroll a startup based largely on their shared enthusiasm for realizing this dream. Yergin records that America’s first cars were, in fact, electric, and that Edison was sufficiently enamored of the idea to invest in it. But Henry Ford’s

8. General Soleimani, the book relates, was the prime mover behind Iran’s Quds Force, which it utilized to foment military attacks beyond its own borders. The book also documents Soleimani’s death in early 2020 at the hands of a U.S. drone attack, just as the general was driving away from the Baghdad Airport. *Id.* at 289.

9. *Id.* at 288.

assembly line, along with such advances in the internal combustion engine as substituting electric starters for the old-fashioned cranks, enabled the gasoline-powered car to surge ahead.

The idea of electric cars was revived in the 1990s, Yergin relates, as California regulators pressured automakers to improve fleet fuel efficiency. GM spent a billion dollars to design a product that entered the marketplace in 1996—unsuccessfully, as it turned out. It fell to Musk and his visionary engineers, beginning with the Roadster in 2006 and the Model S in 2012, to move the needle with head-turning, fun-to-drive products—in the process shocking the industry, which didn't believe an obscure startup could outflank the majors. Yergin then surveys the ensuing efforts of the established companies, including GM, to break through with their own EV models, and describes impressive strides in China—now the largest, if not smoggiest, car market in the world—to produce state-of-the-art EVs for domestic consumption and export.¹⁰

Never a mere cheerleader, Yergin underscores that the technical and commercial successes of EVs to date, both in the United States and abroad, owe much to government mandates, generous subsidies, tax credits, and special road privileges for EV drivers. For example, we learn that: (1) licenses to drive in China's biggest cities are issued freely to owners of EVs, but are sparingly allocated by lottery to non-EV owners; and (2) Norway, with the largest penetration of EVs of any nation at 40%, propels EV sales via nearly irresistible subsidies (which the nation can well afford) and driver-lane preferences. Yergin ponders when EVs—still only 3% of global sales—will become mainstream, and whether the transition will require still more regulatory mandates and large subsidies (which countries exiting the pandemic may ill afford) to spur their manufacture and sale. There are, moreover, significant hurdles, he notes, in battery manufacturing and supply chain costs, as well as in widespread availability and speed of charging stations.

The “range of [EV adoption] predictions can be very wide,” Yergin concludes, and “governments will certainly have overriding, even decisive impact.”¹¹ In a subsequent discussion, his long-term outlook is framed this way: “Oil is no longer the unchallenged king in automotive transportation. But for some time to come, its writ will still extend quite widely across the realm of transportation.”¹²

In *The New Map's* closing chapters, the author looks more squarely at the status of the climate change debate, the state of play for renewables, the changing fuel mix, and what he terms “the disrupted future.” Yergin provides a compact summary of the runup to the Paris Climate Accord, its consummation in December 2015, what it does and does not entail, and how a newly elected President Trump denounced U.S. participation early in his term, commencing the lengthy withdrawal process.¹³ Nevertheless, maintains Yergin, the Paris Climate Accord shifted the debate from whether human activity is warming the planet and by how

10. Yergin notes that China views the EV business as a “new game” wherein it can compete internationally (unlike the conventional car business), adding that almost 1 million EVs were sold there in 2019. *THE NEW MAP*, *supra* note 2, at 341-42.

11. *Id.* at 346.

12. *Id.* at 371.

13. *Id.* at 382.

much, to a more proactive posture: what are nations (and its corporate citizens) willing to do about it.

Yergin also points out how the ringing of alarms over climate change has migrated to the financial/investment world: “The claxon was sounded by Mark Carney, the then-governor of the Bank of England” calling for a “‘sweeping reallocation’ of investment away from traditional energy companies” and towards “decarbonization of economies.”¹⁴ However, the author also documents the “pushback” against divestment agendas, quoting Bill Gates’s comment that such advocacy “probably has reduced about zero tons of emissions” and adding himself: “Consumer demand [for conventional fuels] still has to be met.”¹⁵ The divestment campaign has also sprouted on college campuses, with Yale and Harvard endowment managers under siege.¹⁶ As to the strategy of some activists to rebrand fossil fuels as “dangerous and addictive” *a la* tobacco companies, Yergin acerbically remarks: “The difference, of course, is that tobacco is a habit, while oil and gas are enablers of modern life.”¹⁷

In his roundup of recent European Union (EU) declarations and measures to achieve a much greener energy mix, Yergin terms the EU’s proposed forced march towards “net zero” carbon emissions in 2050 “breathtaking: nothing less than reshaping economic activity, directing investment, and rebuilding Europe’s economy” in a way that will “aggregate power to the European Commission” by “regulating businesses and allocating capital.”¹⁸ While Yergin does not go as far as pronouncing such a goal unachievable, he provides some cost estimates and labels the entire project “daunting.”

In his “Renewables Landscape” chapter, Yergin underscores China’s tremendous press to dominate global solar equipment manufacturing while also becoming the world’s largest solar panel consumer—representing half the global market in 2017.¹⁹ While documenting the considerable growth of solar and wind capacity in the United States and globally through 2020, Yergin warns that *availability* factors are well below advertised capacity (averaging about 20% for solar, 25% for wind, though greater for the newer installations and offshore wind). After discussing the balancing challenges for grid operators posed by increasing amounts of intermittent and distributed generation, he offers this cautionary assessment: “. . . [A]t this time, at least, solar and wind cannot go it alone. They need partners. Natural gas generation is a flexible partner for solar and wind. Gas is lower-carbon and lower emissions (with methane control) and gas generation can be ramped up and down to provide balance against the fluctuations of wind and solar.”²⁰

14. *Id.* at 384-85.

15. THE NEW MAP, *supra* note 2, at 386.

16. *Id.*

17. *Id.* at 387.

18. *Id.* at 389.

19. *Id.* at 396.

20. THE NEW MAP, *supra* note 2, at 402.

The New Map's gaze into the future also includes a short “Breakthrough Technologies” chapter.²¹ With respect to carbon capture, Yergin stresses that, while some environmental activists are dismissive of it because they believe society should forswear all human, carbon-emitting activities, the “large-scale management” of carbon is “of critical importance” and the U.N. Intergovernmental Panel on Climate Change—one of the most influential bodies driving the movement to de-carbonize—“accords an important role to carbon capture, as does the International Energy Agency.”²²

The author also takes a detour into the less-developed world, examining the “energy poverty” experienced by three billion people (40% of the world’s population) who often suffer from the “indoor pollution” caused by reliance on primitive cooking fuels.²³ The chapter concentrates on India—soon to be the world’s most populous country—which is heavily dependent on coal and oil for its commercial energy.²⁴ For the sake of public health, the government is attempting to “usher in a gas-based economy,” including propane and LNG. The plan is to use gas to diversify and incrementally decarbonize the generation mix, as well as displace diesel fuel in the transportation sector with compressed natural gas.²⁵ Thus, says Yergin, the phrase “energy transition” has a different meaning in the developing world.

In an extended discussion of the future for big oil and gas companies (The Changing Mix), Yergin points out that (1) any decline in oil demand over the next thirty years will be at most gradual, as growing utilization in developing countries offsets anticipated conservation and fuel-switching in the developed world, and (2) demand for natural gas, including LNG, remains in a growth mode.²⁶ Besides, these companies are accelerating their research and development efforts into technologies offering renewable alternatives to oil and gas as well as carbon capture, with some embracing their own “net zero carbon” targets.²⁷

V. CONCLUSION

While few reviewers are inclined to proclaim any book “flawless,” and no book can be all things to all people, *The New Map* approaches those ideals.²⁸ Its remarkable breadth of scope explores the numerous facets of a complex subject in an accessible manner that should satisfy both an energy professional’s appetite for up-to-date facts, statistics, and charts, and a generalist’s interest in historical perspectives and overarching themes. For energy practitioners and policymakers,

21. Yergin points out that he and former Department of Energy Secretary Ernest Moniz have teamed up on a new study, *Advancing the Landscape of Clean Energy Innovation*, sponsored by the Gates Foundation and the Breakthrough Energy Coalition. This study inventories some twenty-three technologies with high potential.

22. THE NEW MAP, *supra* note 2, at 404.

23. *Id.* at 407.

24. *Id.* at 408.

25. *Id.* at 410.

26. *Id.* at 417-18.

27. THE NEW MAP, *supra* note 2, at 419.

28. The book includes some maps, which are key to understanding a number of chapters, but at times the reader wishes for a few more—or cross-references to the pages with relevant maps. In rare instances, it seems that the wrong word is used, or consecutive sentences begin with “but,” a minor stylistic hiccup.

Yergin provides a comprehensive, well-indexed and -footnoted treatise that is stimulating to read straight through but can also serve as a reference work. It studiously avoids the polemics that plague some texts on energy, geopolitics, and their intersection; when the author offers an opinion, it is reasoned and nuanced—not didactic. He keeps the reader cognizant of the many contingencies, uncertainties, and challenges that complicate predictions.

In short, Yergin has provided his audience once again with a timely, far-reaching book that, with considerable patience and wisdom, explains how energy matters, how it works, and how the world will continue to revolve around it.