

COAL WARS THE FUTURE OF ENERGY AND THE FATE OF THE PLANET

Coal Wars

Since the late 18th century, when it emerged as a source of heating and, later, steam power, coal has brought untold benefits to mankind. Even today, coal generates almost 45 percent of the world's power. Our modern technological society would be inconceivable without coal and the energy it provides. Unfortunately, that society will not survive unless we wean ourselves off coal. The largest single source of greenhouse gases, coal is responsible for 43 percent of the world's carbon emissions. Richard Martin, author of *SuperFuel*, argues that to limit catastrophic climate change, we must find a way to power our world with less polluting energy sources, and we must do it in the next couple of decades—or else it is "game over." It won't be easy: as coal plants shut down across the United States, and much of Europe turns to natural gas, coal use is growing in the booming economies of Asia— particularly China and India. Even in Germany, where nuclear power stations are being phased out in the wake of the Fukushima accident, coal use is growing. Led by the Sierra Club and its ambitious "Beyond Coal" campaign, environmentalists hope to drastically reduce our dependence on coal in the next decade. But doing so will require an unprecedented contraction of an established, lucrative, and politically influential worldwide industry. Big Coal will not go gently. And its decline will dramatically change lives everywhere—from Appalachian coal miners and coal company executives to activists in China's nascent environmental movement. Based on a series of journeys into the heart of coal land, from Wyoming to West Virginia to China's remote Shanxi Province, hundreds of interviews with people involved in, or affected by, the effort to shrink the industry, and deep research into the science, technology, and economics of the coal industry, *Coal Wars* chronicles the dramatic stories behind coal's big shutdown—and the industry's desperate attempts to remain a global behemoth. A tour de force of literary journalism, *Coal Wars* will be a milestone in the climate change battle.

The Story of the Earth in 25 Rocks

Every rock is a tangible trace of the earth's past. *The Story of the Earth in 25 Rocks* tells the fascinating stories behind the discoveries that shook the foundations of geology. In twenty-five chapters—each about a particular rock, outcrop, or geologic phenomenon—Donald R. Prothero recounts the scientific detective work that shaped our understanding of geology, from the unearthing of exemplary specimens to tectonic shifts in how we view the inner workings of our planet. Prothero follows in the footsteps of the scientists who asked—and answered—geology's biggest questions: How do we know how old the earth is? What happened to the supercontinent Pangea? How did ocean rocks end up at the top of Mount Everest? What can we learn about our planet from meteorites and moon rocks? He answers these questions through expertly chosen case studies, such as Pliny the Younger's firsthand account of the eruption of Vesuvius; the granite outcrops that led a Scottish scientist to theorize that the landscapes he witnessed were far older than Noah's Flood; the salt and gypsum deposits under the Mediterranean Sea that indicate that it was once a desert; and how trying to date the age of meteorites revealed the dangers of lead poisoning. Each of these breakthroughs filled in a piece of the greater puzzle that is the earth, with scientific discoveries dovetailing with each other to offer an increasingly coherent image of the geologic past. Summarizing a wealth of information in an entertaining, approachable style, *The Story of the Earth in 25 Rocks* is essential reading for the armchair geologist, the rock hound, and all who are curious about the earth beneath their feet.

Blackout

Coal fuels about 50 percent of US electricity production and provides a quarter of the country's total energy. China and India's ferocious economic growth is based almost entirely on coal-generated electricity. Coal currently looks like a solution to many of our fast-growing energy problems. However, while coal advocates are urging full steam ahead, increasing reliance on the dirtiest of all fossil fuels has crucial implications for the global climate, energy policy, the world economy, and geopolitics. Drawbacks to a coal-based energy strategy include: Scarcity – new studies suggest that the peak of world coal production may actually be less than two decades away. Cost – the quality of produced coal is declining, while the expense of transport is rising, leading to spiraling costs and increasing shortages. Climate impacts - our ability to deal with the historic challenge of climate change will hinge on reducing our coal consumption in future years. Blackout goes to the heart of the tough energy questions that will dominate every sphere of public policy throughout the first half of this century, and is a must-read for planners, educators, and anyone concerned about energy consumption, peak oil and climate change.

Coal and Energy

Long dismissed as a relic of a bygone era, coal is back -- with a vengeance. Coal is one of the nation's biggest and most influential industries -- Big Coal provides more than half the electricity consumed by Americans today -- and its dominance is growing, driven by rising oil prices and calls for energy independence. Is coal the solution to America's energy problems? On close examination, the glowing promise of coal quickly turns to ash. Coal mining remains a deadly and environmentally destructive industry. Nearly forty percent of the carbon dioxide released into the atmosphere each year comes from coal-fired power plants. In the last two decades, air pollution from coal plants has killed more than half a million Americans. In this eye-opening call to action, Goodell explains the costs and consequences of America's addiction to coal and discusses how we can kick the habit.

Big Coal

This book is an in-depth analysis of the dynamics of energy in the 21st century. It looks at the risks presented by non-renewable energy sources such as fossil fuels by giving a special consideration to their single most implication: climate change and by considering some fundamental yet important aspects of energy such as its forms, conservation, measure, and distribution. In it, Fritz Dufour also dives deep into the economics of energy by analyzing important concepts such as energy efficiency and the behavioral gap, energy security and its quantification, and the costs and policies of energy programs. Each type of energy – from the non-renewable category of energies (coal, petroleum, and natural gas) – to the renewable category of energies (solar, wind, hydro, biomass, and geothermal energies) – is analyzed in terms of its discovery, extraction, storage, distribution, use, and pros and cons. A strong argument is presented in favor of being proactive by prioritizing energy-efficient technologies in order to fortify the bleak future of energy, as the world's population is set to double by the end of the century and as each energy source has its strengths and weaknesses. Finally, the book stresses the dilemma that we face: no known single renewable source of energy can yet make up for or effectively replace the fossil fuels that have been making our world turn and upon which every single human being is directly or indirectly dependent.

The Costs and Implications of Our Demand for Energy: A Comparative and Comprehensive Analysis of the Available Energy Resources

This book is the 2nd edition of the Economics of the International Coal Trade. Coal is the single most important source of power on our planet and today accounts for 40% of electricity generation and 30% of primary energy. The world's appetite for energy is still far from being met. Until 2050, an additional 6+ billion people will require access to proper power. "Why Coal Continues to Power the World" introduces the reader to the global coal business; its importance; its source; its global demand, supply and trade; its use; its environmental impact; and its future. Despite recent price hikes, coal does not appear to be a popular subject today, which may explain the little attention it receives in the scientific community. Since writing the first

edition during the commodity super cycle in 2006–2008, the world has changed. How has this impacted the global world of coal? This book is useful to energy economists, businessmen, politicians, university professors, high school teachers, students and anyone with an interest in how the world is powered. It is also helpful to anyone studying climate change and global warming. This new edition of the book includes previously not covered special sections on: * Coal analysis and sampling with a special section on moisture * A technical summary of all key coking coal characteristics in Appendix 2 * Coking coal, iron ore and the steel industry * Cement and petcoke markets * Global gas markets and the shale gas revolution in the US * Nuclear energy and the history of the oil market * Renewable energy and the German „Energiewende“ * Power plant technology and CO2 sequestration and processing * The role of CO2 and why man-made CO2 does not cause global warming Apart from giving an in-depth overview of the global coal business, in this book the author argues that coal is far from “dead”. Some of my key messages are contrary to popular beliefs: The importance of coal will further increase in absolute and likely even in relative terms for decades to come. Man-made CO2 has no effect on global temperatures and combustion of fossil fuels does not influence the weather. We cannot stop the advance of coal, we can only make this process as environmentally sustainable as humanly possible. Therefore, mankind needs to embrace coal as the “bridge” from the Oil Age to the Solar Age (through the “New Energy Revolution”). (4) Industrialized nations have to invest in coal and in all means to more efficiently burn coal in order to truly help the global environment and reduce global dust, SOX, and NOX emissions.

Economics of the International Coal Trade

Energy and the modern state -- The political economy of energy -- Urban sprawl in the U.S. and the creation of the Hitler regime -- Urban sprawl, the Great Depression, and the start of World War II -- U.S. economic elites, nuclear power, and solar energy -- Global oil politics -- Plutonium and U.S. foreign policy -- Conclusion: energy and the global order

Energy, the Modern State, and the American World System

Today’s electric power companies compete to provide cleaner electricity. That’s a good thing, but progress has come with costs, especially for communities reliant on the coal industry. Thomas McGarity examines the changes of recent decades and offers ideas for building a more sustainable grid while easing the economic downsides of coal’s demise.

Pollution, Politics, and Power

Over 4.5 billion years, Earth’s climate has transformed tremendously. Before our more temperate recent past, the planet swung from one extreme to another—from a greenhouse world of sweltering temperatures and high sea levels to a “snowball earth” in which glaciers reached the equator. During this history, we now know, living things and the climate have always influenced and even shaped each other. But the climate has never changed as rapidly or as drastically as it has since the Industrial Revolution. In this lively and entertaining book, Donald R. Prothero explores the astonishing connections between climate and life through the ages, telling the remarkable stories of the scientists who made crucial discoveries. Journeying through the intertwined evolution of climate and life, he tackles questions such as: Why do we have phytoplankton to thank for the air we breathe? What kind of climate was necessary for the rise of the dinosaurs—or the mammals, their successors? When and how have climatic changes caused mass extinctions? Prothero concludes with the Ice Ages and the Holocene, the role of climate in human history, and the perils of anthropogenic climate change. Understanding why the climate has changed in the past, this timely book shows, is essential to grasping the gravity of how radically human activity is altering the climate today.

The Story of Earth's Climate in 25 Discoveries

Renewable energy is one of the fastest-growing sectors in the global economy as climate scientists and

environmentalists give voice to the detrimental effects of fossil fuels. But how far have we gotten in developing efficient and sustainable energy, including solar, wind, and geothermal power, and what are the benefits of these renewable energy sources compared to fossil fuels? This text examines the issue from diverse viewpoints, allowing students to analyze key ideas in energy production through primary source evidence.

Critical Perspectives on Fossil Fuels vs. Renewable Energy

The long-term future for coal looks bleak. The recent UN climate change conference in Paris called for an end to the use of fossil fuels. However, coal remains one of the world's most important sources of energy, fuelling more than 40% of electricity generation worldwide, with many developing nations relying almost wholly on coal-fuelled electricity. Coal has been the fastest growing energy source in recent years and is essential for many industrial activities, but the coal industry is hugely damaging for the environment. A major driver in climate change and causing around 40% of the world's carbon dioxide emissions, coal fuel comes at a high environmental price. Furthermore, mining and air pollution kill thousands each year. A timely addition to the series, this book critically reviews the role of coal in the 21st century, examining energy needs, usage and health implications. With case studies and an examination of future developments and economics, this text provides an essential update on an environmental topic the world cannot ignore.

Coal in the 21st Century

A landmark book rolls out a bold, new, energy-based theory of human history based on a simple, yet powerful law: whoever controls the world's effective energy supplies during a given energy age will inevitably dominate the economic, political, and cultural history of that age. The innovative theory articulated in *Sources of Power: How Energy Forges Human History* parses history into four ages: the foraging, agriculture, coal, and oil ages, each defined by the dominant source of power. Manfred Weissenbacher tests this sweeping theory against the panorama of world history, combining formidable powers of synthesis with a specialist's deep understanding of energy systems and technologies. After proving the operation of his law through history and into the present, Weissenbacher applies it to global geopolitical trends. He assesses the prospects of the various candidate technologies to succeed oil and charts future scenarios based on the distribution of energy reserves. Finally, he forecasts the fates of the American and Chinese empires in the twilight of the oil age: the United States as a mature superpower forced to deploy military might to occupy oilfields in the Middle East; China as an emerging superpower forced to deploy economic might to muscle in on the development of Third World oilfields.

Sources of Power [2 volumes]

We are in the midst of an enormous global energy transition happening before our eyes. Alternative energy forms including solar, wind, water, and bio-fuels are challenging the established energy sources that have fuelled the industrial era for the past century. As we look to this century's energy future an examination of the past is important to understand how these choices will be made. What political, economic, and ethical lessons can be learned from how coal, oil, and natural gas became the power of the 20th century? Are those lessons instrumental in determining future decisions about emerging alternative energy choices? The opportunities and the risks involved in making, or not making these choices are enormous. Through case studies and examples of past and present development of energy sources, the story is told of the global energy industry. In its telling *Energy, Economics, and Ethics* wrestles with many of the difficult questions at the heart of the emerging global energy transition

Energy, Economics, and Ethics

Will international wars where energy resources play a central role continue to hold sway over life and death for industrialized nations, or is this a transient phase in the evolution of industrial societies? This book

answers this question by tracing the history of energy and conflict from antiquity, through the epic hot and cold wars of the twentieth century, to expected outcome of the war in Iraq. It points the way to the end of wars over control of fossil fuels, and demonstrates why these may be the last major international wars over other resources as well. This book is a must-read for anyone interested in the future of energy use or international conflict. Readers will find in it an illuminating overview of the sweep of historical events. The book further provides a compelling explanation of how a thorough understanding of the evolutionary direction of these events challenges the conventional wisdom that resource wars are endemic to the nature of industrial society, thus offering a fresh view on one of the most important challenges of our time.

Energy and International War

When the fortunate among us feel very sick, we visit a doctor. If we are lucky, they will decide that the ailment is curable and issue us with a prescription. For some tablets, perhaps. Or something simpler, like rest. More often than not the problem goes away. Our planet is sick, according to the scientists of the IPCC, the Intergovernmental Panel on Climate Change. Their prescription to humanity is clear: we must arrest the rising temperature of Earth's surface, by reducing the concentrations of greenhouse gases in our atmosphere. The symptoms won't clear up unless we act, and even then there will likely be lasting effects. In *Prescriptions for the Climate Crisis*, Simon Richards looks at the impacts of how we move around, power our lives, shelter, and consume, and prescribes possible solutions to lessen the Climate Crisis. Rather than dwelling on doom and gloom, he suggests pragmatic ideas for individuals and governments in an accessible style.

Prescriptions for the Climate Crisis

The Violence of Work demonstrates that violence has always been an important part of work under capitalism. The editors explore workplace violence in a diverse range of North American workplaces from the nineteenth through the twenty-first century.

Violence of Work

China's rapid industrialisation has led to \"an air pollution catastrophe\". Concerted efforts to achieve economic growth have led to veiled skies of toxic air and created health and morbidity problems as well as tremendous environmental degradation. *China's Air Pollution Problems* provides an overview of air pollution in China describing how and why China has ended up in such a dire situation, what the government is doing to address the problem and the difficulties it is encountering in attempting to reduce the pollution. The analysis is based on both grey literature (newspaper articles, NGO reports, Chinese government information) and on academic studies. The grey literature gives a voice to those who suffer from the pollution, their advocates, and government officers, and allows the reader to better grasp the conditions on the ground, and the impact of air pollution among people in different areas in China. The academic literature adds a theoretical perspective and brings these different case studies into a broader context. This book will be of great interest to students of environmental pollution and contemporary Chinese studies looking for an introduction to the topic and also for researchers looking for an extensive list of sources and analysis of China's environmental problems.

China's Air Pollution Problems

Traveling in China today and walking about in various cities, it is easy to observe the continued unbridled construction of huge, megalithic high-rise complexes in vast stretches of the country, complete with the untrammelled despoiling of nature and intensification of pollution, as well as the ever increasing vibrancy of the Chinese people, glued to their cell phones and actively connected online, always moving about and hustling for yet another deal. At the same time, using the internet without a VPN and talking to academics at various universities, it becomes obvious that there is a massive increase in repressive measures by the state,

the tightening of the intellectual control of both content and expression, the fluctuating inaccessibility of information sources that used to be perfectly fine. What, the question arises, is going on here? Where China stands today and where is it headed from here? And what, in all of this, is the role and place of Daoism? These sixty vignettes on \"Daoist China\" present different aspects of life in China, in each case describing the current situation and connecting it to the role and changing facets of Daoism today, focusing in turn on dimensions of governance, economics, and culture.

Daoist China: Governance, Economy, Culture

Fossil fuels are a valuable commodity at the forefront of national and international politics. Pipelines can create jobs and economic growth, not to mention delivering a commodity to people who need it. What happens when there is conflict about the land through which a pipeline travels? Such conflicts can lead to protests, stoppages, and even war. Readers of this comprehensive volume, which explores the topic from a multitude of angles, will learn how a simple pipeline can have enormous geopolitical ramifications.

Pipelines and Politics

More and more people believe we must quickly wean ourselves from fossil fuels - oil, natural gas and coal - to save the planet from environmental catastrophe, wars and economic collapse. In this 2006 book, Professor Jaccard argues that this view is misguided. We have the technological capability to use fossil fuels without emitting climate-threatening greenhouse gases or other pollutants. The transition from conventional oil and gas to their unconventional sources including coal for producing electricity, hydrogen and cleaner-burning fuels will decrease energy dependence on politically unstable regions. In addition, our vast fossil fuel resources will be the cheapest source of clean energy for the next century and perhaps longer, which is critical for the economic and social development of the world's poorer countries. By buying time for increasing energy efficiency, developing renewable energy technologies and making nuclear power more attractive, fossil fuels will play a key role in humanity's quest for a sustainable energy system.

Sustainable Fossil Fuels

The purpose of the study is to examine the role of coal in a world where constraints on carbon emissions are adopted to mitigate global warming. The study's particular emphasis is to compare the performance and cost of different coal combustion technologies when combined with an integrated system for CO₂ capture and sequestration.

The Future of Coal

\"Scathing exposé of the coal industry.\" --The New York Times Book Review On April 5, 2010, an explosion ripped through Massey Energy's Upper Big Branch Mine, killing twenty-nine coal miners. This tragedy was the deadliest mine disaster in the United States in forty years—a disaster that never should have happened. These deaths were rooted in the cynical corporate culture of Massey and its notorious former CEO Don Blankenship, and were part of an endless cycle of poverty, exploitation, and environmental abuse that has dominated the Appalachian coalfields since coal was first discovered there. And the cycle continues unabated as coal companies bury the most insidious dangers deep underground, all in search of higher profits, and hide the true costs from regulators, unions, and investors alike. But the disaster at Upper Big Branch goes beyond the coalfields of West Virginia. It casts a global shadow, calling into bitter question why coal miners in the United States are sacrificed to erect cities on the other side of the world, why the coal wars have been allowed to rage, polarizing the country, and how the world's voracious appetite for energy is satisfied at such horrendous cost. With *Thunder on the Mountain*, Peter A. Galuszka pieces together the true story of greed and negligence behind the tragedy at the Upper Big Branch Mine, and in doing so he has created a devastating portrait of an entire industry that exposes the coal-black motivations that led to the death of twenty-nine miners and fuel the ongoing war for the world's energy future.

Thunder on the Mountain

This book, originally published in 1974, examines the changes that took place in the market position of the coal industry in the twentieth century. It examines in detail the position of the industry during the two World Wars, the problems of the inter-war years, the effects of nationalisation and the coal shortage after the Second World War, the decline of the markets in the 1960s and the consequences of the energy crisis of the early 1970s. The book analyses what problems the changes caused, and what measures were taken to try to overcome them. Looking in detail at the industrial disputes of 1971/2 and 1973/4 the book shows how the miners' actions fitted in closely with their past experiences and behaviour patterns.

The Price of Coal

From the author of the now-classic *Resource Wars*, an indispensable account of how the world's diminishing sources of energy are radically changing the international balance of power. Recently, an unprecedented Chinese attempt to acquire the major American energy firm Unocal was blocked by Congress amidst hysterical warnings of a Communist threat. But the political grandstanding missed a larger point: the takeover bid was a harbinger of a new structure of world power, based not on market forces or on arms and armies but on the possession of vital natural resources. Surveying the energy-driven dynamic that is reconfiguring the international landscape, Michael Klare, the preeminent expert on resource geopolitics, forecasts a future of surprising new alliances and explosive danger. World leaders are now facing the stark recognition that all materials vital for the functioning of modern industrial societies (not just oil and natural gas but uranium, coal, copper, and others) are finite and being depleted at an ever-accelerating rate. As a result, governments rather than corporations are increasingly spearheading the pursuit of resources. In a radically altered world—where Russia is transformed from battered Cold War loser to arrogant broker of Eurasian energy, and the United States is forced to compete with the emerging "Chindia" juggernaut—the only route to survival on a shrinking planet, Klare shows, lies through international cooperation. *Rising Powers, Shrinking Planet* surveys the energy-driven dynamic that is reconfiguring the international landscape, and argues that the only route to survival in our radically altered world lies through international cooperation. "Klare's superb book explains, in haunting detail, the trends that will lead us into a series of dangerous traps unless we muster the will to transform the way we use energy." -- Bill McKibben

Rising Powers, Shrinking Planet

A fascinating insight into the global battle for our energy future. The global competition for scarce natural resources that pits the West against the super-hot economies of China and India, plus a clutch of other contenders including Russia, Brazil, and Indonesia, has become one of the biggest issues facing the world today. Whether it is the rare metal lithium found in salt pans in the Andes, gas from the Caspian Sea, oil off the coast of Brazil, coal from Africa's Zambezi River, or uranium from Kazakhstan, China and India are desperate to ensure the security of their future energy supplies. The same goes for food and water, as contamination and over-use take their toll, the need to provide continued access for the next generation and beyond has increased exponentially. In *Earth Wars: The Battle for Global Resources*, international business journalist Geoff Hiscock explores the problems, potential solutions, and inevitable tensions in this ongoing scramble for finite natural resources. Going beyond "big power" politics to explore resource ownership and the use of innovative technology to get the most out of them, the book takes a forward-looking approach to this pressing issue. Written in clear, jargon-free language, it tells the global resources story in a fresh and engaging way that anyone can understand. Includes insightful, up-to-the-minute coverage of the most pressing debates over resource allocations. Discusses the major Chinese and Indian businesses that are just becoming known to those in the West (Sinopec, CNOOC, CNPC, Indian Oil, ONGC, Reliance, Coal India, SAIL, and many others). Presents resource- and region-specific chapters to help readers view the pertinent issues from multiple angles. As the economies of China and India grow to challenge those of the West, the battle over natural resources will continue to heat up. *Earth Wars* looks at this very real problem in-depth, presenting a definitive look at one of the greatest challenges of our time.

Energy in the world economy

Monograph comprising the final report of the wocol study on world coal mineral resources - summarizes the current situation regarding supply and demand (incl. Projections to the year 2000), and covers in particular power consumption and power resources, production, trade and international markets, environmental protection, sea transport, coal mining, technological processes in petrochemical industry, capital formation and capital investment, etc. Diagrams, graphs and statistical tables.

Earth Wars

This volume focuses on the topic of energy transitions in the coal mining industries of China and Japan by adopting a Sino-Japanese comparative approach in area studies to examine the experiences between the two major East Asian economies. In China, rapid industrialization led to dramatic growth in energy demand and much of this energy demand was fueled by affordable coal energy. With growing social concerns about the environment and an increasingly vocal middle class in contemporary China, the authorities and state-owned enterprises are studying the use of coal fuels for its future development. In Japan, coal was also an affordable main source of energy for Japan's early post-war heavy industrialization until it was gradually replaced by oil in the 1960s. The oil shocks of the 1970s compelled Japan to look for cleaner and cheaper fuels, including nuclear power. In these energy transitions from coal to oil and then onto non-fossil fuels, the story of coal power in both countries is highlighted in this publication as a comparative study. This volume is a crucial contribution to the discussion of China's energy reforms, and required reading for scholars of climate change and society.

Coal--bridge to the Future

A Nobel laureate imagines the technologies that will allow us to harness alternative fuel sources and power society, despite the lack of carbon-based fuels, in an intriguing look at two centuries into the future.

The Future of Coal

This is a topical new series that addresses the pros and cons of all energy courses. Each book looks at the fundamentals of each energy type with information on how they work, their benefits and limits, examples from around the world and the current and future questions. Debates run strongly throughout as readers are encouraged to look at how the type of energy affects people and planet Earth. Coal, Gas and Oil look at the current energy crisis and the debate around each source of power. This book looks at energy from fossil fuels.

Energy Transitions in Japan and China

This book explores the crisis in fossil fuels. Oil, gas and coal are precious resources that define modern life. Without them, mass-produced food and clothing, and international travel and cars, become rare or impossible. Yet our reliance on fossil fuels is responsible for massive environmental damage, and increasing economic and political instability. Control over oil resources has been a major factor in several wars. The price of oil is also key to world economic stability. Yet our supply of oil is limited. As with other fossil fuels, the more we burn, the more damage we do – the number one cause behind global warming is the increase in carbon dioxide from burning fossil fuels. The international range of contributors to this book provide a truly global perspective on the dangers inherent in our over-consumption of oil, gas and coal. They explore detailed evidence of the imminent acceleration of fossil fuel depletion and the limits of 'sustainability'. They outline the political background to the situation, not just among the world's largest consumers of fossil fuel, the US and China, but also in Europe and the developing world. Considering our future economic survival, they include a detailed examination of France and Australia. Finally, they explore the extreme costs of alternatives such as nuclear power, and outline other possible lifestyles and methods.

Powering the Future

Understanding ExtrACTIVISM surveys how contemporary resource extractive industry works and considers the responses it inspires in local citizens and activists. Chapters cover a range of extractive industries operating around the world, including logging, hydroelectric dams, mining, and oil and natural gas extraction. Taking an activist anthropological stance, Anna Willow examines how culture and power inform recent and ongoing disputes between projects' proponents and opponents, beneficiaries and victims. Through a series of engaging case studies, she argues that diverse contemporary natural resource conflicts are underlain by a culturally constituted 'extractivist' mind-set and embedded in global patterns of political inequity. Offering a synthesizing framework for making sense of complex interconnections among environmental, social, and political dimensions of natural resource disputes, Willow reflects on why extractivism exists, why it matters, and what we might be able to do about it. The book is valuable reading for students and researchers in the environmental social sciences as well as for activists and practitioners.

Coal, Gas and Oil

The promise of "green jobs" and a "clean energy future" has roused the masses. But as Robert Bryce makes clear in this provocative book, that vision needs a major re-vision. We cannot--and will not--quit using carbon-based fuels at any time in the near future for a simple reason: they provide the horsepower that we crave. The hard reality is that oil, coal, and natural gas are here to stay. Fueling our society requires that we make good decisions and smart investments based on facts. In *Power Hungry*, Bryce crushes a phalanx of energy myths, showing why renewables are not green, carbon capture and sequestration won't work, and even--surprise!--that the U.S. is leading the world in energy efficiency. *Power Hungry* delivers a clear-eyed view of what's needed to transform the gargantuan global energy sector.

The Final Energy Crisis

This scarce antiquarian book is a facsimile reprint of the original. Due to its age, it may contain imperfections such as marks, notations, marginalia and flawed pages. Because we believe this work is culturally important, we have made it available as part of our commitment for protecting, preserving, and promoting the world's literature in affordable, high quality, modern editions that are true to the original work.

Understanding ExtrACTIVISM

A "meticulously researched" (The New York Times Book Review) examination of energy transitions over time and an exploration of the current challenges presented by global warming, a surging world population, and renewable energy—from Pulitzer Prize- and National Book Award-winning author Richard Rhodes. People have lived and died, businesses have prospered and failed, and nations have risen to world power and declined, all over energy challenges. Through an unforgettable cast of characters, Pulitzer Prize-winning author Richard Rhodes explains how wood gave way to coal and coal made room for oil, as we now turn to natural gas, nuclear power, and renewable energy. "Entertaining and informative...a powerful look at the importance of science" (NPR.org), Rhodes looks back on five centuries of progress, through such influential figures as Queen Elizabeth I, King James I, Benjamin Franklin, Herman Melville, John D. Rockefeller, and Henry Ford. In his "magisterial history...a tour de force of popular science" (Kirkus Reviews, starred review), Rhodes shows how breakthroughs in energy production occurred; from animal and waterpower to the steam engine, from internal-combustion to the electric motor. He looks at the current energy landscape, with a focus on how wind energy is competing for dominance with cast supplies of coal and natural gas. He also addresses the specter of global warming, and a population hurtling towards ten billion by 2100. Human beings have confronted the problem of how to draw energy from raw material since the beginning of time. Each invention, each discovery, each adaptation brought further challenges, and through such transformations, we arrived at where we are today. "A beautifully written, often inspiring saga of ingenuity

and progress...Energy brings facts, context, and clarity to a key, often contentious subject” (Booklist, starred review).

Power Hungry

This collection of non-partisan reports written by award-winning CQ Researcher journalists focuses on provocative current policy issues. As an annual publication that comes together just months before it goes to press, the volume is all new and as up-to-date as possible. And because it’s CQ Researcher, the policy reports are expertly researched and written, showing all sides of an issue. Chapters follow a consistent organization—exploring three issue questions, then offering background, current context, and a look ahead—and feature a pro/con debate box. All issues include a chronology, bibliography, photos, charts, and figures.

Coal, Iron and War: A Study in Industrialism, Past and Future (1920)

“We are the most fortunate generation that has ever lived. And we are the most fortunate generation that ever will.” --George Monbiot

What George Monbiot means by this is that our civilization has leveraged the awesome power of fossil energy to create a world that only a short time ago would have been nearly unimaginable. Our health, our wealth, our leisure, our freedom from tyranny and struggle, are all benefits bestowed upon us by harnessed energy of oil and coal. But the price of these gifts has been a growing environmental crisis. Our atmosphere is filling up with carbon dioxide, which is released by the burning of fossil fuels. Carbon dioxide traps the sun's heat, causing the temperature of our planet to rise. The reason why future generations are unlikely to be as fortunate as us is that fossil energy is just too good to be true. We cannot go on enjoying the benefits of this dirty energy. We must either address the problem, which will be a tough challenge involving many sacrifices, or ignore it, with unthinkable consequences. George Monbiot's *Heat: How to Stop the Planet from Burning* marks an important moment in our civilization's thinking about global warming. The question is no longer whether climate change is actually happening. The question is what to do about it. Monbiot offers an ambitious and far-reaching program to cut our carbon dioxide emissions to the point where the environmental scales start tipping away from catastrophe. (But not before he devotes a chapter to unmasking the vested interests that have spent fortunes funding the specious science of the climate change deniers.) He does not pretend it will be easy. The threshold for disaster, he argues, is a rise of two degrees centigrade above pre-industrial levels. Past two degrees, science tells us, the ability to control climate change passes out of our hands. At that point, the world's forests will fall into decline, changing cloud formation patterns and releasing the billions of tons of carbon the trees store. Past two degrees, the permafrost begins to thaw, releasing billions of tons of methane, a greenhouse gas far more destructive than CO₂. At the same point, the polar ice begins to melt, affecting ocean currents and water levels. This is called a “positive feedback loop,” and it means that once we've passed two degrees, nothing can be done to stop it rising to three. And once we hit three, four will follow. Two degrees is also the point at which the globe slides towards increasing water scarcity and, eventually, food deficit. And the fact is, we're already seeing the consequences of climate change around the globe: collapsing ice shelves, the failure of the cyclical rains in Eastern Africa, drought in Australia, the spread of tropical diseases into new territory as temperatures rise, pollution of aquifers with salt water in Bangladesh. Global temperatures have already risen 0.6 of a degree, causing huge damage to the natural environment and inflicting suffering on vast numbers of people. The only way to avoid further devastation, and forestall the catastrophe of positive feedback, Monbiot argues, is a 90% cut in CO₂ emissions in the rich nations of the world by 2030. In other words, our response will have to be immediate, and it will have to be decisive. But where to start? Monbiot starts at home, where we have most control. Though he draws his examples from the UK, and commends Canadians for our superior building standards, he makes a damning case that the buildings we live and work in squander energy. Since our heat and electricity produce CO₂, nearly every bit of heat and power we waste (like nearly every bit of heat and power we use) commits us to greenhouse gas emissions. Monbiot finds ways for us to build, and live, so much better that we can cut emissions at home by the required 90%. He then looks at the source of our electricity, and evaluates the arguments for both local micro-generation (for example, solar

photovoltaic panels and small wind turbines), and renewable energy for the grid. His research leads him to some unexpected discoveries, but he finds a way to trim our emissions by the necessary margin. Another obvious source of CO2 emissions is our transportation - the cars we drive and the flights we take. A little ingenuity, he argues, will allow us to deal with the former. But the latter, he acknowledges, is shaping up to be the Achilles heel of all efforts to curb greenhouse gas emissions. A couple of less obvious major sources of CO2 are the retail and construction industries. Big box stores, with their inefficient designs, their racks of heaters, air conditioners, and blazing lights (to say nothing of the sprawling parking lots full of cars that drive back and forth on shopping trips), are simply inconsistent with a low-carbon future. But Monbiot has a thoughtful and surprisingly simple solution. Similarly, the concrete industry, that backbone of all new construction, emits millions of tons each year as a consequence of the immense heat and chemical processes involved in the manufacturing process. Though the solution here is not as ready to hand, it is still possible. In short, the scale of the changes before us is staggering, as is the size of the problem. But Monbiot ends on a note of hope. We have shown ourselves to be capable of enormous ingenuity and great feats of cooperation and sacrifice when confronted with a serious threat. The Second World War provides countless examples of citizens and engineers doing the supposedly impossible in order to get the job done. Fighting climate change will not require young men to die in battle, but a failure to tackle the problem urgently and with all the determination we can muster will cost uncountable lives. There is no reason to think we will do less when faced with a threat to the sustainability of all life on the planet than we did when faced with a threat to our political and ethical values. Monbiot argues there is no time to waste. As he has said himself, \"we are the last generation that can make this happen, and this is the last possible moment at which we can make it happen.\"

Energy

While concerns about climate change have focused negative attention on the coal industry in recent years, as descendants of the industrial revolution we have all benefitted from the mining of the black seam. Coal has significantly influenced the course of human history and our social and natural environments. This book takes readers on a journey through the extraordinary artistic responses to coal, from its role in the works of writers such as Émile Zola, D. H. Lawrence, and George Orwell; to the way it inspired the work of painters, including J. M. W. Turner, Claude Monet, and Vincent van Gogh; to the place of coal in film, song, and folklore; as well as the surprising allure of coal tourism. Strikingly illustrated, Coal provides engaging and informative insight into the myriad ways coal has affected our lives.

Issues for Debate in American Public Policy

Heat

[study guide the nucleus vocabulary review](#)

[good health abroad a traveller s handbook w h jopling](#)

[dental practitioners formulary 1998 2000 no36](#)

[mini r56 service manual](#)

[fundamentals of engineering economics chan s park](#)

[novel raksasa dari jogja](#)

[smart things to know about knowledge management](#)

[mercedes om 612 engine diagram](#)

[kuesioner keputusan pembelian](#)

[stick and rudder an explanation of the art of flying](#)