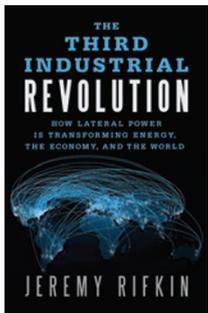


End of an era



The Third Industrial Revolution: How Lateral Power is Transforming Energy, the Economy, and the World

by *Jeremy Rifkin*

PALGRAVE MACMILLAN: 2012. 291 PP. \$27.00

A decade ago, the concept of citizens from all over the world sharing information on almost every imaginable topic — online and without pay — would have been inconceivable. So too perhaps would the hundreds of millions connecting with virtual strangers on social networking sites. Yet at present Wikipedia has more than 3.5 million entries, making it 30 times larger than *Encyclopaedia Britannica*, and Facebook alone boasts more than 800 million members. Access to the Internet has revolutionized and democratized how we receive and distribute information. Citizens are now as likely to be the generators of news and data as they are the recipients, and the flow of information is as often lateral as it is top down.

The recent revolution in information technology provides both a blueprint and a foundation for a similar transformation in how we generate and distribute energy — one in which citizens become micro-producers as well as consumers. Such is the premise of *The Third Industrial Revolution*, the latest offering from US scholar and prolific author Jeremy Rifkin, who has written on topics from developing a hydrogen economy to embracing a world in which unemployment is the norm. In *The Third Industrial Revolution*, Rifkin lays out his vision for how the world can transition to a new economic era based on sustainable energy and equitable access to energy.

It is no news that in today's world, energy is increasingly in short supply. For the past several decades, we have found just one barrel of oil for every three and a half barrels we consume. Our ever-shrinking supply of oil is controlled by a few nations, and by fewer corporations; Royal Dutch Shell, Exxon Mobil and BP are ranked as three of the four largest companies worldwide. With oil prices predicted to reach \$150–\$200 a barrel in the years ahead, and with global temperatures on the rise, who can argue with

the need for a new industrial age? The first Industrial Revolution was founded on coal, and is perhaps best signified by steam power and the construction of the US railroads. The second was an age of technology, electricity and rapid industrial expansion in Western Europe. The third, according to Rifkin, will see a move towards renewable energies and away from the old economic paradigm where big industry and centralized government has control on the supply of goods and services.

Rifkin's approach has five 'pillars', each needed in tandem to bring about an energy revolution, which — in line with timescales for previous energy transitions, such as from wood-based fuels to coal and steam — should take about half a century. The first of the five pillars is a global transition to renewable energy. Here, Rifkin's role as advisor to numerous governments and corporations worldwide allows a fascinating insider

account of the extent to which his vision of a third industrial revolution is gaining traction in circles of influence. He details, for example, the European Union's endorsement of the third industrial revolution in May 2007, and his involvement in the creation of sustainable plans for cities such as San Antonio, Utrecht and Rome. In doing so, he provides a compelling narrative that the European Union is set to lead the charge globally on transitioning to a sustainable energy economy, with its 20-20-20 vision to have by 2020, a 20% cut in greenhouse-gas emissions, 20% of energy coming from renewable sources and a 20% improvement in energy efficiency. He also points to Europe's lead in deployment of solar power, putting it far ahead of both the United States and China.

Central to Rifkin's five-point plan is the idea that energy should be generated locally and shared at the level of each continent or

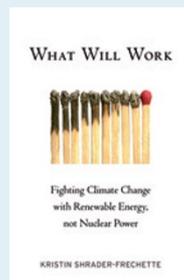
ON OUR BOOKSHELF



Adapting to a Changing Environment: Confronting the Consequences of Climate Change

by *Tim R. McClanahan and Joshua Cinner*
OXFORD UNIV. PRESS: 2011. 208 PP. £40.00

In this book, which focuses on coral reef fisheries in East Africa and the Western Indian Ocean, coastal ecologist Tim McClanahan and social geographer Joshua Cinner provide an interdisciplinary account of how climate change will impact the ecology and economy of people dependent on natural resources. They present a conceptual framework and associated toolbox of options to provide governments, scientists and managers with the local contextual information needed to adapt to changing environmental conditions.



What Will Work: Fighting Climate Change with Renewable Energy, Not Nuclear Power

by *Kristin Shrader-Frechette*
OXFORD UNIV. PRESS: 2012. 368 PP. £27.50

In *What Will Work*, environmental ethicist Kristin Shrader-Frechette builds a case against nuclear fission as a solution to the climate-mitigation problem, arguing that nuclear is not, in practice, low in greenhouse-gas emissions or financially responsible, and that its risks fall mainly on the poor and vulnerable. She further argues that energy efficiency and renewable solutions can meet all of these requirements — and in particular, affordability, safety and equitability.