Energy, environment and global health

Fact and fiction in global energy policy: 15 contentious questions. By Benjamin K. Sovacool, Marilyn A. Brown and Scott V. Valentine. Baltimore, MD: Johns Hopkins University Press. 2016. 370pp. £,26.00. ISBN 978 1 42141 897 1. Available as e-book.

Is the car of the future electric? Should geo-engineering be outlawed? Is nuclear energy worth the risk? Those are just a few of the questions taken up in a new book by three experienced energy policy experts. In a remarkably accessible and balanced manner, the book summarizes the arguments of opposing sides in each of these contentious energy debates, before showing where common ground can be found. The result is a lucid exposition of the foremost debates in global energy policy that will appeal to novice and seasoned energy policy pundits alike.

Energy policy debates are often highly polarized and ideological, with opposing sides 'dug in the trenches' and unwilling to seriously consider the arguments of the 'adversary'. Many books have been written to make the case for why a particular energy source, technology or policy is 'good'—and, as a corollary, alternatives to it are 'bad'. See, for example, Joseph Romm's *The hype about hydrogen* (Island Press, 2004), written in response Jeremy Rifkin's *The hydrogen economy* (Penguin, 2002). The strength of the book reviewed here is that it brings together both sides from the start. More precisely, it aims to replace 'energy monologues' with Hegelian dialectics: an analytical method that begins with a thesis, juxtaposes it to an antithesis and then develops a synthesis.

Such an exercise in trying to find common ground is, regrettably, still a rare feature in today's energy policy debates. It is equally exceptional for someone to change her or his opinion on energy policy matters—like Al Gore who, in 2010, admitted it was a mistake to support first-generation ethanol technology—even though the science, markets and social realities of energy continue to shift apace.

Crucially, the authors do not argue that energy questions should be depoliticized and left to engineers and physicists. Their aim is not to stymie the debates, but rather to expose how our attitudes on energy policy matters are shaped by ideological frames, values, worldviews and paradigms. 'Contention', the authors state, 'is not dysfunctional. It is healthy' (p. 6). In the concluding chapter, eight competing 'frames' are identified along with six causes of contention: competing interests; complexity and change; risk and uncertainty; undemocratic exclusion and injustice; values and ideology; and energy evangelism (when energy policy preferences become a matter of religious or political faith, downgrading or ignoring opposing information).

The breadth of coverage in the book is impressive and the topics are well chosen. The fifteen questions are divided into four categories: energy and society; energy resources and technology; climate change; and energy security and energy transitions. The book covers some well-trodden ground, such as peak oil, nuclear energy, the food versus fuel debate, electric vehicles and geo-engineering. It is both comprehensive and topical, and the authors often refer to recent trends and events (e.g. the 2016 Paris climate change agreement or the massive fall in solar photovoltaic prices), as well as the latest scientific insights (e.g. on the speed of energy transitions).

The authors deserve to be commended for composing what is set to become a standard work of reference. The book synthesizes a wealth of research results and arguments on a broad spectrum of subjects, and it does so with a degree of open-mindedness that is hardly ever encountered in the public energy debate. The lucid style of writing, making ample use

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of anecdotes, lively examples and metaphors (such as the analogy of peak oil as a jellybean counting contest), makes the book appealing and digestible to the wider public.

This book will remain on my shelf for many years to come and I sincerely hope the publisher will make new editions available over the coming years so that it can become a standard fixture of introductory energy courses worldwide.

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Ebola: how a people's science helped end an epidemic. By Paul Richards. London: Zed Books. 2016. 192pp. £,62.00. ISBN 978 1 78360 859 1. Available as e-book.

For those who had the impression that the 2014 Ebola epidemic was brought to a halt solely by the arrival of international responders, who set up treatment centres, this book by anthropologist Paul Richards will be an eye opener. It provides a more complete explanation of how the crisis was ended and what lessons might be drawn from this for combating future epidemics. Readers get to know, in a few chapters, how community action in Sierra Leone, Guinea and Liberia helped avert a global health crisis. Local communities, vilified by the press for not conducting burials in a safe way and therefore helping to spread the virus were, according to this book, instrumental in responding to the epidemic.

Richards's book is short, concise and designed for a non-specialist audience. He does discuss theories of behavioural change rather a lot, which might detract from the book's accessibility, but it is overall easy to read and very valuable in terms of understanding underlying and often erroneous assumptions about the role of the affected communities in the three west African countries. The book shows that the initial days of the international response will need to be properly examined in order to avoid similar mistakes in the future and to better accommodate people's needs to react to a health threat in their own manner.

Outside 'experts' are not always able to provide the best advice, or at least not advice that is adapted to local customs. For example, initial communications from the World Health Organization (WHO) to the affected populations on how to avoid infection included advice on not eating or touching a sick or deceased animal, singling out bats and monkeys as possible sources of danger. However, although zoonotic spillover caused the first infection, transmission after that was from human to human. Some local people followed this advice, though ended up questioning its validity when new cases, unrelated to eating bushmeat, kept occurring. The WHO initial instructions on stopping the spread of infection caused further confusion. It instructed people not to care for a sick person suspected of having Ebola at home, while at the same time providing advice on how to care for someone at home if getting the patient to a treatment facility turned out to be impractical. This included instructions on how to create protective clothing with plastic bags in order to avoid infection. But, as locals pointed out, who was going to provide the bags and other equipment in areas, communities or families where resources were scarce?

Richards relates a number of actions carried out by locals to show that some of the battles and victories against Ebola were, in many ways, the result of fast evidence-based local learning. Communities faced with the virus and sick family members and friends were able to assess the biosafety risks themselves and come up with strategies to avoid infection. Kailahun District in Sierra Leone, for example, showed evidence of decline in infections even before the international response arrived, thanks to strategies implemented by local groups. This shows, the author argues, that communities are able to create their own

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