The Routledge Handbook of Energy Security, Benjamin K Sovacool, ed (Abingdon: Routledge, 2011) 436 pages.

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Twenty contributors and an introduction and conclusion by the editor make up this book; it is a substantial and original scholarly achievement, more than the Routledge series label 'handbook' might indicate. There are three main kinds of chapter contribution to the work. The first kind addresses the concept of energy security; the second deals with particular aspects of it, and the third puts forward different measures or indicators of energy security.

Sovacool's introduction is a model of clarity in stating the themes and objectives of the book, and in stating what makes it unique or different. In the past, since the 1970s, energy security has been discussed as security of the supply of fuel, above all, oil. There are chapters in this book that reflect the continuing strength of the specific concerns, for example Liss (on maritime security), Goldthau, applying general ideas of public policy to them, and Pakiam on industrial policy aimed at particular industries. What Sovacool and the contributors do is broaden the discussion, in light of a recent revival of interest in energy security, to include affordability, energy poverty, equity, development, energy demand and energy efficiency, the environment, and climate change. They point out that we must consider the different scales where energy security is relevant; the household, the industry, the nation, the world. Equally, it is relevant on different time scales, from the near-instantaneous time frames of electricity grid stability to decadal shifts of population, economic change and technology change. The difficulty is deciding just what is to be included in the idea of energy security and what is to be left out.

Many contributors (Jansen and Van der Welle, Pachauri, Kruyt et al, Hughes and Shupe) use, or refer to, the Asia-Pacific Energy Research Centre's formulation of energy security as availability, accessibility, acceptability, and affordability – the four As. Sovacool and Brown use a modified version of it: availability, affordability, energy and economic efficiency, and environmental stewardship. (They measure the latter in emissions of sulphur dioxide and carbon dioxide.) A chapter by Trudeau and Taylor particularly addresses efficiency, while chapters by Pachauri and D'Agostino consider different aspects of affordability. A third formulation of energy security, more supply-focused, standing in the name of this reviewer and his colleagues in earlier work, is access to sufficient energy resources at reasonable prices for the foreseeable future free from serious risk of major disruption of service, and is discussed by Sovacool and by Pasqualetti in an account of a meeting on the subject in Singapore in 2009. A fourth approach is to focus on energy diversity, on the value in diversification of energy sources, to prevent disruptions in supply and to mitigate their effects when they happen. Stirling identifies three components, variety, balance, and disparity, and Kessels applies diversity ideas to the quantification of security of supply.

Spectacularly, the editor unearths 45 different definitions of energy security. Any number of meanings of energy security beckon. In the contributions, perhaps the biggest question is whether environmental and climate change security should form part of an understanding of energy security. Indriyanto et al, von Hippel et al, and Brown and Dworkin are examples of those who believe that they should; a modern view of energy security has essential linkages with sustainable development, and the broad range of threats to energy security require a holistic treatment of causes and effects. On the other hand Luft, Korin and Gupta argue that we should keep climate change out of it, for example in not including second-order effects such as the effect of climate change on energy supplies. One senses strengths and weaknesses on both sides; we seek security in access to energy, and that is conceptually straightforward; but we can also frame that need for access in wider concerns about our security.

Perhaps it is better not to argue for one single definition; or perhaps it has simply become impossible to agree on one. Valentine argues that energy security has become too affected by ideology to permit agreement, and the best we can hope for is – to use his take on Plato – to drag the assumptions out of the ontological caves inhabited by energy security analysts and into the light of day. Von Hippel and colleagues point out that energy security is a less useful concept in policy analysis now; energy markets are more global and diverse than they were. Those who are working directly on quantifiable indices come to similar conclusions. Kruyt et al conclude that it is not possible to capture energy security in a single indicator. Even ostensibly objective measures such as reserves to production ratios are difficult to pin down, and quantifications of political stability are very difficult to pin down. Cherp and Jewell argue convincingly that we should not strive for universal indicators, but should instead work in contextualized frameworks. Energy systems are complex, how they will evolve is unclear, and they are beset by the competing agendas of those who define energy security priorities. The true focus should be on the process of identifying assumptions; policy-makers should use context-specific tools for the informed local assessment of energy security. And indeed the value of metrics of different kinds is shown by Kessels, Hughes and Shupe, Sovacool and Brown, and Gnansounou, all of whose work produces results of value to policy-making.

Lim and Sovacool, in their conclusion, are right to find that the meaning of energy security is the chief point of contention. It is not an easy matter to sidle around. Is energy security an effort to tell people what to worry about most – keeping the household running, war in the Middle East, or climate change? Is it that everything worth debating in public policy must be 'securitized'? Perhaps a more serious objection still, in conceptual terms, is whether there is any issue in energy policy that cannot be couched as one of energy security. Is energy security now so broad a concept that it is meaningless? The overall conclusion of this book is no. If there is a satisfying modern conception of energy security, this book is a very cogent expression of it, and a most compendious resource for its appraisal.