

## BOOK REVIEW

### "ENERGY SECURITY", 2004

Barton, B et al (eds), International Bar Association (IBA), Oxford University Press, Oxford, UK  
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Fears of running out of oil have always haunted the energy industry. After the 1973 OPEC crisis, energy security became a major foreign policy and economic policy concern for all energy importing countries. The International Energy Agency (IEA) was then established as a counter to OPEC. At the same time, the major energy importing countries made concerted moves to diversify their energy supply sources away from oil.

Energy security has again become the most widely-discussed concern on the global energy policy agenda. The main reasons are:

- (i) Since 1973, global primary energy demand has doubled.
- (ii) Despite the doubling of demand, there has been no major energy crisis since 1973 and energy has remained both available and affordable to most consumers around the world. This almost incredible achievement is due to the globalisation of energy markets.
- (iii) In recent years, some large energy importing countries, most notably the US and China, have been increasing their energy imports faster than their domestic production. They are therefore now relatively far more vulnerable to energy supply disruptions than they were in 1973. So also are other importing countries such as Australia because, in a globalised marketplace, a disruption that affects one will inevitably affect all.
- (iv) Terrorism is on the increase. Most energy importing nations were already anxious about their energy security before the events of September 11, 2001. The fear of terrorism has now multiplied this anxiety.

This book is concerned with today's most important global energy concern; it is a well-written, scholarly collection of contributed chapters brimming with practical and intellectual insight; and it is likely to be of enduring value.

Professor Anita Ronne of Denmark heads a team of four accomplished co-editors, the others being Barry Barton of the University of Waikato, Hamilton, New Zealand, Catherine Redgwell of University College, London and Donald Zillman of the University of Maine, Portland, Maine USA. A total of 21 contributors, including the editors, were involved but, regrettably, not any Australian contributor.

The concept of energy security is not well known in the existing literature, nor is it well understood. The editors have defined energy security as "a condition in which a nation and all, or most, of its citizens and businesses have access to sufficient energy resources at reasonable prices for the foreseeable future free from serious risk of major disruption of service."

I would have preferred a simpler definition such as "the risk of energy supply disruption". The incorporation of the elements of sufficiency, reasonableness of price and time seems to complicate rather than clarify the core issue. A number of contributors have attempted to address broad issues of energy supply as distinct from the core issue of energy security.

The editors provide in chapter 1 an introduction to the subject of energy security and conclude in chapter 19 with an overview. Alone, these two chapters justify the acquisition of the book as a

source of reference on any law or energy industry bookshelf and, for that matter, any bookshelf concerned with contemporary issues of politics, economics, sociology or the environment. Between the introductory and concluding chapters, there are 17 other chapters on international, regional and national approaches to the subject. There is also a chapter arguing the case for sustainable development over energy security, which I found rather curious, as I explain later.

In addressing energy security, I suggest we should all ask ourselves the question: what is it that makes individual countries vulnerable to energy supply disruptions?

I suggest there are three main causes: the first, and the most important, is over-dependence **on a single form** of primary energy — this applies whether it is oil, gas, coal, uranium, hydro or the new forms of renewable energy.

The second cause is over-dependence on **any particular source** of primary energy — this applies whether it is oil from the Middle East, coal from Australia or LNG from Indonesia.

The third cause is over-dependence on **a single energy infrastructure facility** — this applies whether it is a single pipeline, a single oil or gas storage facility or a single electricity transmission grid.

What might be the best solution for a particular country will depend on a number of interrelated factors. Broadly, these are:

- (i) the **continuing efficiency of open global energy markets**
- (ii) a **diversified portfolio** of energy forms and energy supply sources, with increased utilization of natural gas
- (iii) **interconnection of energy systems**: interconnection also offers interconnected countries and regions more opportunities to achieve environmentally favourable outcomes than they can derive from geographically isolated, smaller systems and
- (iv) **timely investment** in energy production and storage facilities, pipelines and other transport facilities, electricity generation facilities and electricity transmission and distribution networks.

In brief, reducing energy supply vulnerability requires a portfolio approach to energy planning.

Professor Redgwell, in her chapter on international energy security, describes how international law relates to four types of threats to energy infrastructure: (1) the threat to pipelines and cables, (2) the threat that tanker traffic poses to the marine environment and the threat that piracy or hijacking pose to tanker traffic, (3) the threat to offshore installations and (4) the threat to onshore installations which have a connection with international energy trade. Redgwell outlines the functions of the Organization of Petroleum Exporting Countries (OPEC) and the International Energy Agency (IEA). She describes how the energy security interests of investors and traders are protected by institutions such as the World Trade Organization, by bilateral and multilateral investment treaties and, in particular, by the 1994 Energy Charter Treaty (ECT). She refers also to the interrelation with environmental and human rights concerns. She argues that international law facilitates rather than restricts state action, pointing out that states remain responsible for determining their own energy choices and, as she puts it, reaping the consequences.

Dr Andrei Konoplyanik, Deputy Secretary-General of the Energy Charter Secretariat of Brussels, addresses energy security from the energy investment cycle perspective, that is, in terms of “manageable risks”. He describes how the ECT, the first multilateral investment and trade treaty in energy, enhances both security of energy supply and security of energy demand in a competitive, open and transparent global energy market. Konoplyanik emphasises the importance of transparency of investment and trade in minimising investment risks and improving

the stability of international energy flows, which in turn increases international energy security at all levels – local, national, regional and global.

Professor Leigh Hancher and her colleague Sally Janssen, both of Kreiborg University in the Netherlands, examine the European dimension of energy supply security, both in terms of institutions and in terms of policy initiatives and implementing measures, including secondary legislation. They highlight the tension between the competition-based foundations on which the European internal market concept is based and the restrictions which result from national measures to promote security of supply.

Professor Yinka Omorogbe of the University of Ibadan, Nigeria provides an enlightening review of regional and national frameworks for energy security for the whole of the African continent. She highlights the positive approach of some African countries and subregional cooperation in South Africa but emphasises that, without peace across the African continent, there can be no common enjoyment of the benefits of development and growth. She highlights the significance of the formation in 2001 of the African Energy Commission (AFREC) but laments its poor ratification rate. She also highlights the significance of the New Partnership for Africa's Development (NEPAD) and suggests that subregional corporation may offer a greater prospect of more rapid increases in energy security in the countries involved.

Many individual chapters then follow dealing with national approaches: the United States (Professor Donald Zillman of the University of Maine and Michael Bigos), Canada (Professor Alastair Lucas of the University of Calgary, Alberta) Mexico (Professor Jose Juan Gonzalez Marquez of Universidad Autonoma Metro Politana, Mexico City), Venezuela and Colombia (Professor Lila Barrera-Hernandez of the University of Calgary), Denmark (Professor Anita Ronne of the University of Copenhagen), the Netherlands (Dr Martha Roggenkamp of the University of Leiden), Norway (Professor Ulf Hammer of the Scandinavian Institute of Maritime Law, University of Oslo), Germany (Professor Gunther Kuhne, Technical University of Klausthal), Spain (Professor Inigo Del Guayo of the University of Almeria), New Zealand (Professor Barry Barton, the University of Waikato, Hamilton), Singapore (Professors Lye Lin-Heng and Chan Yungho of the National University of Singapore) and Japan (Professor Kazuhiro Nakatani of the University of Tokyo). Each of the national chapters provides different but complementary insights into the issue of energy security.

Although Australia does not feature in this collection, it might be noted that the Commonwealth is at the time of going to press conducting a review of the Liquid Fuel Emergency Act 1984 as to whether it confers appropriate powers on the government to intervene in the event of an emergency in the supply of liquid petroleum fuels. This is a "last resort" power. Although Australia produces 70 percent of its own petroleum consumption in volume terms, 60 percent of its refinery feedstock is imported to meet Australian refinery configurations so that they can best match the product slate required by the Australian marketplace. This results in most of Australia's indigenous production being exported to foreign refineries. This only underscores the vital importance of the global open trading system to Australia.

This review would be incomplete without reference to the rather curious chapter co-authored by Professors Susan Noe and George Pring of the University of Denver, Colorado. They argue that sustainable development should not be allowed to be "trampled by energy security rhetoric." Energy security is however a prerequisite of sustainable development. They should know that, unless the world has secure energy supply systems, sustainable development can never be achieved.

Overall, this book is an important source of guidance and clarification for energy lawyers and energy policy-makers.

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