
Introduction

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The *Handbook of Energy Politics* is concerned primarily with the geopolitics of energy in a changing landscape. As we are reminded by Mel Conant, who aptly defined the term geopolitics in the early 1970s:

“geo” refers to the location of oil reserves; “politics” reflects the decisions of importing and producing governments affecting access to supplies. The basic ingredients will always be a mix of politics, economics, and security objectives. All of the factors have to be kept in mind since overlooking one or more may invite serious trouble.¹

The scope and complexity of these issues increases with the rise of technology, cybersecurity and environmental concerns.

The book is divided into five parts: “The Fundamentals of the Global Energy Industry: The Supply Side”; “The Fundamentals of the Global Energy Industry: The Demand Side”; “Main Influences in Geopolitics”; “The Evolution of Technology, Capital and Financial Markets in the Energy Industry” and “Environmental Issues and Renewable Energy Policy.”

The first part, “The Fundamentals of the Global Energy Industry: The Supply Side” contains five chapters on geopolitical factors affecting the supply of crude oil and natural gas in the major global producing regions. In Chapter 1, Anna Vypovska, Laura Johnson, Dinara Millington and Allan Fogwill review the complex legislative and environmental issues associated with the development of natural gas reserves in British Columbia. We are reminded of the importance of achieving and maintaining positive relationships, effective consultation and engagement with potentially affected Indigenous groups, all factors which remain critical for sustainable development, and the success of projects around the globe.

Nina Poussenkova’s chapter, “Oil on the waters of the RIC energy relations” asks whether the emergence of a “third player” completing the RIC triangle will pour oil on troubled waters of Russia–China petroleum relations, or make Russia’s partnership with its European and Asian energy counterparts even more stormy.

Liu Xiaoli and Tian Lei addresses the exciting field of energy transitions and natural gas developments in China, advocating policies that support

the development of natural gas and ensure the safety of supply so that natural gas becomes a bridge in the process of energy transition.

In Chapter 4, Douglas B. Reynolds explores the effects of institutions on the supply of oil, concluding that the “oil market is likely to be highly volatile in the future due to scarcity, the lack of oil-supply expansion capacity and market reinforcing institutional changes.”

Alberto Cisneros Lavaller examines the implications of plummeting oil prices on Latin American producing companies, and concludes that the greatest impact has been on a number of junior oil companies in the region and in certain countries like Colombia. There is a light at the end of the tunnel for the region’s conventional and non-conventional oil industry.

The second part on “The Fundamentals of the Global Energy Industry: The Demand Side” contains a number of chapters exploring the geopolitical factors affecting the demand for crude oil and natural gas in the major global producing regions.

Chapter 6, “The role of Sino-Russian gas cooperation in China’s natural gas expansion,” contributed by Keun-Wook Paik, reminds us of the geopolitical importance of LNG and pipeline gas imports to China, and the role that these will play in the coming years in parallel with China’s gas expansion.

In Chapter 7, Se Hyun Ahn draws the reader’s attention to the harsh political turmoil and divided national public opinion in the Republic of Korea (ROK), that presides over virtually every issue in the history of the ROK. Perhaps not surprisingly, given the 2013 nuclear scandals, the issue of energy security has become one of the most sensitive in the ROK’s domestic politics.

In Chapter 8, Philip Andrews-Speed and Sufang Zhang examine the evolution of China’s energy policy since 1949 using the electricity industry as an example. The analysis illustrates the complex interplay between domestic and external events, and how these factors contribute to the establishment of policy and agenda. The chapter helps identify the factors that render policy design and decision-making highly path-dependent and to illustrate the ability of policymakers to learn from experience. This chapter provides an indication of the potential evolution of energy policy at the international, regional, national and local levels.

Chapter 9 presents a brief historical perspective on natural resource development in Sub-Saharan Africa (SSA). Rene Roger Tissot explains how SSA has the potential to achieve rapid industrialization through the exploitation of natural resources if proper local content policies are adopted. While local content policies are a necessary condition, they are not a sufficient one. Historically, it can be shown that it is the “missing middle,” referring to the lack of formal small and medium firms in SSA, that presents an effective barrier to industrialization.

The next part, “Main Influences in Geopolitics,” discusses recent trends in the energy industry, and the primary factors that are driving the future development of global resources. The section addresses questions concerning the physical limitations to natural energy supplies, geopolitical forces such as political tensions, corruption, growing populations and demands, and the rise of renewables and non-conventional supply sources.

Mamdouh G. Salameh examines the future of oil, questioning whether there will ever be a post-oil era, and what that might look like given significant changes in some aspects of the multi-uses of oil in transport, electricity generation and water desalination which will eventually be mostly powered by solar energy.

In Chapter 11, Colin J. Campbell warns of constraints on conventional resources, growing population and demands, resulting in the evolution of the Oil Age to another stage in its development. “It is not solely an issue of petroleum supply as such, as the modern world is also destroying its environment, depleting water supplies, cutting down forests and causing soil erosion.” The chapter examines the potential geopolitical implications of impending constraints on energy resources, suggesting a number of policy prescriptions to meet the challenges that lie ahead.

Michael Lynch examines recent trends in the energy industry, noting that new sources of power, whether renewables or nuclear, will play a modest but significant role in changing global geopolitics, primarily reducing coal use. Perhaps more importantly, the development of shale oil and gas has the potential to reduce energy imports and increase security of supply while at the same time making markets more transparent. Declining petroleum revenues have the potential to increase political instability in exporting nations.

Chapter 13 examines the problems of corruption and resource curse encountered by a number of host companies engaged in the development of large-scale extractive resource projects. Paul Stevens and Jennifer I. Considine examine a number of possible solutions to the “resource curse” including the staged development of projects, and the development of appropriate incentive schemes for host countries.

In Part IV, Chapter 14 addresses the financing of renewable energy, suggesting that a lag in financial markets might be creating a “log jam to the expansion of green investing.”

In Chapter 15, Tilak Doshi examines the pricing nexus that has developed between the Middle East oil producers and their oil-importing neighbors “East of Suez” over the past half century. This complex and dynamic relationship is among the most fundamental variables of any global model of energy politics, and faces a number of challenges, including the development of a dependable solid Asian futures contract for

crude oil which can serve as a widely used pricing benchmark for sour crude.

In Chapter 16, Luciano de Castro, Joisa Dutra and Vivian Figer investigate increasing demands on the power system, which is rapidly evolving from a one-way power flow (from power plants to end users) to two-way power flows on transmission lines and local distribution networks. The move to smart grid technologies “increases digital complexity and attack surfaces,” raising data security, cybersecurity and privacy-related issues. As services become more digital and automated, power disruption has greater consequences. Problems of jurisdiction and rapidly evolving technologies suggest that cybersecurity regulations require a degree of flexibility to keep pace with evolving threats, and the valuation of the DERs will have to account for the costs of cybersecurity.

The final part, “Environmental Issues and Renewable Energy Policy,” examines the pace of the transition to a low carbon environment, suggesting a number of policies that might be adopted to help aid the transition.

Geoffrey Wood examines the progress to date of the low carbon energy center. While “on the face of it, the low carbon energy sector appears overall to be doing well: capacity is up, records are being broken, novel technologies are reaching market maturity and costs are falling,” policy risk and the lack of consensus on basic definitions and clear long-term goals on the climate and energy are hampering the sector’s ability to invest in low carbon growth.

Finally, Lara Lázaro-Touza reminds us that there is still work to be done on the issue of climate change. In order to meet the 2°C targets as defined by the Paris Accord, the international community will require increasing certainty regarding the effects of climate change, specifically the establishment of direct links between extreme weather events and changing climate and the effectiveness of international policy and diplomacy.

NOTE

1. M.A. Conant (1994) “The geopolitics of oil,” *Geopolitics of Energy*, **16** (7), July 1, Washington, DC: Canadian Energy Research Institute.