Energy law – up until today – has addressed only how to generate electricity, mine coal, extract oil and gas, and distribute energy sources. With contemporary concerns for climate modification due to emissions from burning fossil fuels, new energy trading systems have emerged to encourage the use of solar, wind, geothermal, and other renewable sources, as well as hydrological sources. In addition, laws today manage demand for energy, not just supply. This book sets forth the legal instruments – at international and national levels – that are in use today to govern energy efficiency, demand-side management, and sustainable use of energy.

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IUCN ACADEMY OF ENVIRONMENTAL LAW RESEARCH STUDIES

Compendium of Sustainable Energy Laws

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Acknowledgments

The editors gratefully acknowledge the contributions of a number of individuals who have assisted in the compilation of this set of primary references on sustainable energy law. Nancy Kong and Elena Roffman, law students at Pace University School of Law, have reviewed a wide range of energy law resources to come up with the legal instruments selected here. The Director of the Pace University School of Law Library, Professor Marie Newman, and her able colleagues Jack McNeill and Cynthia Pittson, provided invaluable assistance. The Director of the Pace Energy Project, Professor Fred Zalcman, lent his expertise to the effort, as did the Specialist Group on Energy Law of the IUCN Commission on Environmental Law, in particular Professor Adrian Bradbrook (Adelaide University, Australia). The support of the IUCN Environmental Law Centre, Bonn, Germany, and John Scanlon, head of the centre, and Maria Socorro Manguiat, IUCN’s legal counsel for energy and climate issues, is gratefully acknowledged. The editors are grateful to Cambridge University Press, and John Berger, for their outstanding professional support in publishing this compendium.
Introduction

This volume contains the first compendium of legal instruments ever prepared on the emerging field of the “law of sustainable energy.” Admittedly, no such field of law exists today, but it is fast emerging and will of necessity become a recognized legal discipline. Energy issues were not much featured in Agenda 21, adopted by the United Nations Conference on Environment and Development in 1992. In contrast, the Johannesburg Plan of Implementation adopted in 2002 at the United Nations World Summit for Sustainable Development, featured energy efficiency and energy choice issues as a key element of sustainable development.

The World Energy Assessment (WEA) defines “sustainable energy” as follows: “Energy produced and used in ways that support human development in all its social, economic and environmental dimensions is what is meant by sustainable energy” (page 3, World Energy Assessment: Energy and the Challenge of Sustainability). The WEA was prepared for the United Nations Department of Economic and Social Affairs, the UN Development Programme, and the World Energy Council. Assembled by Professor Thomas Johansson, it is an outstanding survey of worldwide energy supply and demand issues. Before there can be a recognized field of sustainable energy law, there needs to be a global view of the energy problemmatique. The WEA provides that worldview, and its “Overview” chapter sets forth that understanding as the filter for the selection of the legal instruments that are published together here.

At present, energy supply is governed essentially by national laws. The International Energy Agency provides for some collective management of petroleum supplies for developed economies, and by inference for other oil-dependent economies. Traditionally, the only legal concerns for energy address how to ensure a supply, not how to curb wasteful use or manage its externalities. Regulatory utility commissions exist in many nations to ensure that the price of electricity is set at a fair rate, with an affordable price for the consumer, a return sufficient to sustain the generating and distribution facilities, and a reasonable profit for the investors who own or invest in the electrical utility. In situations of gasoline or heating oil shortage, states have intervened to govern prices. Gradually, laws have emerged on the siting of new electrical generating facilities, whether they be for fossil fuel plants or dams or wind farms. Siting laws attempt to deal with the environmental consequences of locating, building, and operating new energy supply systems.
INTRODUCTION

What is missing in all of this pattern of legal development is any attention to the management of demand for energy, or the governance of the efficiency of energy generation and use. Demand side management (DSM) and the economic and other regulatory means for encouraging or mandating DSM have become a primary focus of sustainable energy law. This is a long overdue legal development, since to regulate only supply and not demand is a grossly unbalanced approach to the issues of energy supply and use. When supply was plentiful, it was allocated without regard for the efficiency of use. Now that supply is more problematic, and not always plentiful where needed, the policy and legal focus has turned to DSM.

If nations all understood the common worldview of sustainable energy as advanced by the WEA, the next step would be to understand the range of legal instruments that can be used to implement a sustainable energy system. Many of the elements of a legal framework for sustainable energy have been described by the authors published in Bradbrook, Lyster, Ottinger, and Wang, The Law of Energy for Sustainable Development (Cambridge University Press, 2005). This compendium is intended as a reference of primary sources to serve as a companion volume to that book.

No single nation today uses all the legal elements assembled here. Nations with abundant energy resources, such as the geothermal resource of Iceland or the petroleum resources of West Asia, may have less urgent present need for the different legal tools provided here. Most nations, however, have a pressing and real need to study and deploy appropriate legal innovations to redress their energy supply and demand issues. Nations that lack a national policy on sustainable energy law are coasting toward the disruptions in their economies that blackouts and brownouts and shortages entail. Nations that fail to integrate their economic energy policy with the other two of the three pillars of sustainable development, environmental protection and social equity, will find their energy policy and law drag down and frustrate sustainable growth rather than advance it. This volume provides examples of legal innovations that nations can study and select from to adapt to forge their own sustainable energy policies.

The elements of a sustainable energy law will need to include environmental impact assessment, a technique that is admittedly used very inadequately today to guide the planning and implementation of energy supply regimes. Nations will need to provide a regulatory forum to adjust pricing of electricity and other sources of energy. Until distributed energy systems, such as hydrogen fuel cells, become a widespread reality, the distribution of electricity is a “natural monopoly” and requires some equitable form of market regulation. This, in turn, requires use of meters to measure the use of electricity, management of the grid for distribution to govern the wheeling of electricity across different supply regions, and the associated pricing of the sources of power.

States acknowledge that they have common but differentiated responsibilities to cooperate together to ensure that sustainable development can be attained. Their common responsibility is to develop a common worldview on energy and share knowledge about how to manage the supply and demand of energy resources to meet the needs of their people and their environmental conditions and economies. This volume provides a
basis for understanding the various options for framing the legal reforms that a nation may need to advance toward the goal of sustainable energy.

Innovations in sustainable energy law are moving rapidly. At the present rate of legislative innovation, there will be a need to update this sort of compendium no less than every five years. Slower is the pace of the progressive development of international energy law, but that arguably can only come after the common worldview is more widely embraced and the majority of states have begun to apply their own national laws for sustainable energy.

States will enact different elements of sustainable energy laws, as they do have differentiated responsibilities depending on their stage of economic development, environmental problems, or natural resource endowments. Their common duty, throughout, is to enact an appropriate set of sustainable energy laws. It is the editors’ hope, shared by the IUCN Academy of Environmental Law, that this volume of references may materially further those endeavors.

The Editors