

ENERGY NETWORKS AND THE LAW

Innovative Solutions in Changing Markets

Edited by

Martha M. Roggenkamp

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Preface

This book marks the sixth collaboration of the Academic Advisory Group (AAG) of the International Bar Association's Section on Energy, Environment, Resources, and Infrastructure Law (SEERIL) with Oxford University Press (OUP). Over the years, the academic lawyers of the AAG have shaped a systematic approach to our biennial 'big picture' studies of energy topics.

This collaboration has followed the prior format. At the biennial meeting of SEERIL, the product of the prior biennium's study is released in OUP hardcover book form. The AAG rests only briefly on its laurels. At the same SEERIL meeting, the AAG members vet possible topics for the next biennial study. At the April 2010 SEERIL meeting in Toronto, AAG members selected the topic of networks and their legal implications. Networks are the physical frame of the energy market and crucial for securing energy supply. The organization and administration of these networks is faced with important changes and challenges following market liberalization, climate change, and security of supply policies leading to the introduction of new or renewable energy sources. The topic of networks is also one linking the interests of members of SEERIL as it relates to, and has an impact on, environmental and infrastructure law.

Individual topics were selected by the participating members in the months that followed. A number of additional authors were selected to write chapters that would further expand the coverage of the book. Four editors volunteered to guide the process through to conclusion. The authors then began or continued their research. Most chapters were available and many authors were present at the University of Groningen (Rijksuniversiteit Groningen, or RUG) in the last week of May 2011 for an intensive three-day seminar. Officials of the gas transmission company N.V. Nederlandse Gasunie ('Gasunie') provided expert commentary on several papers and on the overall project. Members of the Groningen Centre of Energy Law of the RUG provided similar expert commentary. Gasunie also provided a highly informative tour of one of its gas compressor facilities and covered some of the cost of the meeting and the book.

We thank Gasunie, the Groningen Centre of Energy Law, and the RUG for their generosity in this collaboration. We also thank the International Bar Association and SEERIL for their encouragement and financial support for the work of our group. A more personal gratitude goes to the Chair of the Council of SEERIL—Arent van Wassenaeer—for his support of this particular project and his attendance at the midterm meeting.

As always, the midterm gathering reaffirmed some assumptions about the book and changed others. Authors and editors returned to their word processors for the final writing and editing that allowed the completed manuscript to reach the editors at OUP in August 2011. We express our appreciation to Merel Alstein and Anthony Hinton of OUP for their assistance in bringing the project to completion.

The Editors
October 2011

List of Abbreviations

Chapter 1

AAG	Academic Advisory Group
IEA	International Energy Agency
NAFTA	North America Free Trade Association
NIMBY	Not in my back yard
OECD	Organization of Economic Cooperation and Development
OUP	Oxford University Press
UAE	United Arab Emirates
UK	United Kingdom

Chapter 2

CEAA	Canadian Environmental Assessment Act
COGO	Canada Oil and Gas Operations
NEB	National Energy Board
POGG	Peace, order, and good government

Chapter 3

CFE	Comisión Federal de Electricidad (Federal Electricity Commission of Mexico)
CRE	Comision Reguladora de Energia (Energy Regulatory Commission of Mexico)
EPR	Empresa Propietaria de la Red (Grid Proprietor of Guatemala)
ERCOT	Electricity Reliability Council of Texas
LGEEPA	General Act for Ecological Balance and Environmental Protection
NAAEC	North American Side-Agreement on Environmental Cooperation
NAFTA	North American Free Trade Agreement
NERC	North American Electric Reliability Corporation
PROFEPA	Attorney General Office for Environmental Protection
ROW	right of way
SIEPAC	Central American Electricity Interconnection System
WECC	Western System Coordinating Council

Chapter 4

AEA	Andean Energy Alliance
CAF	Andean Finance Corporation
CAN	Community of Andean Nations

CANREL	Comité Andino de Organismos Normativos y Organismos Reguladores de Servicios de Electricidad (Council of Ministers of Energy, Electricity, Hydrocarbons and Mines of the Andean Community)
DRS	Dispute resolution system
IDB	Inter-American Development Bank
IIRSA	Integration of the Regional Infrastructure in South America
MERCOSUR	Southern Common Market
PRT	Permanent Review Tribunal
SA	South America
UNASUR	Union de Naciones Suramericanas (Union of South American Nations)

Chapter 5

CCP	Chad–Cameroon Project
CCSRP	Collège de Contrôle et de Surveillance des Revenus Pétrolières (Petroleum Revenue Oversight and Control Committee)
COTCO	Cameroon Oil Transportation Company
CPSP	Committee for Supervision of Pipelines
CSO	Civil Society's Organizations
DRM	Dispute resolution mechanism
EA	Environmental Assessment
ECMG	EMP Compliance Monitoring Consultant
EIB	European Investment Bank
EMP	Environmental Management Plan
FEDEC	Foundation for Environment and Development
FGF	Fund for Future Generations
IBRD	International Bank for Reconstruction and Development
IDA	International Development Agency
IFC	International Finance Corporation (private sector arm of the World Bank Group)
IPP	Indigenous Peoples Plan
NGO	non-governmental organization
PRMP	Petroleum Revenue Management Program
PRML	Petroleum Revenue Management Law
ROW	right of way
SNH	Société National des Hydrocarbures (national hydrocarbon company of Cameroon)
TOTCO	Chad Oil Transportation Company
WB	World Bank
WCS	World Conservation Society
WWF	World Wide Fund for Nature

Chapter 6

ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
BAT	Best available techniques
BEP	Best environmental practices

BIT	bilateral investment treaty
BP	British Petroleum
BTC	Baku–Tbilisi–Ceyhan
CS	continental shelf
COTCO	Cameroon Oil Transport Company
EBRD	European Bank of Reconstruction and Development
ECHR	European Convention on Human Rights
EEZ	exclusive economic zone
HGA	Host Government Agreement
IFI	international financial institutions
IGA	Inter-governmental Agreement
IO	International Organization
NGO	non-governmental organization
OPEC	Organization of the Petroleum Exporting Countries
TBP	transboundary pipeline
UNCLOS	1982 United Nations Convention on the Law of the Sea
UN/IFC	United Nations/International Finance Corporation

Chapter 7

ADCC	Algemene Directie Crisiscentrum (General National Crisis Centre of the Federal Belgium Ministry of Internal Affairs)
AIVD	Algemene Inlichtingen- en Veiligheidsdienst (Dutch General Intelligence and Security Service)
CEN	Comité Européen de Normalisation (European Committee for Standardization)
CENELEC	Comité Européen de Normalisation Electronique (European Committee for Electrotechnical Standardization)
DSO	distribution system operator
ECI	European critical infrastructure
ECIP	European critical infrastructure protection
EEC	European Economic Community
EU	European Union
IEM	Internal Energy Market
ISO	International Organization for Standardization
KLIC	Kabels en Leidingen Informatie Centrum (Dutch Network Information Centre)
KLIM	Kabels en Leidingen Informatie Meldpunt (National Belgian Information Centre on Networks)
KLIP	Kabels en Leidingen Informatie Portaal (Regional Flemish Information Centre on Networks)
MS	Member States
NAVI	National Advice Centre on Vital Infrastructures (the Netherlands)
NCTb	National Coordinator for Counterterrorism (the Netherlands)
OCAD	Coordinating Body on Threat Analysis in Belgium
OSP	operator security plan
SLO	Security Liaison Officer
SOVI	Strategic Consultation on Vital Infrastructure

TFEU	Treaty on the Functioning of the European Union
TSO	transmission system operator
WION	Act on Information Exchange Concerning Subsoil Networks

Chapter 8

ACER	Agency for the Cooperation of Energy Regulators
CHP	combined heat and power
COM	Communication from the Commission
DSO	distribution system operator
ENTSO	European Network of Transmission System Operators
EU	European Union
GHG	greenhouse gas
IEA	International Energy Agency
IPPC	Intergovernmental Panel on Climate Change
SET-Plan	European Strategic Energy Technology Plan
TFEU	Treaty on the Functioning of the European Union
TSO	transmission system operator

Chapter 9

CIP	Conservation Improvement Program
CSP	Curtailment Service Provider
DR	demand response
EIA	Energy Information Administration
EISA	Energy Independence and Security Act of 2007
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act 1935
FPC	Federal Power Commission
GW	gigawatts
IRP	integrated resource planning
ISO	Independent System Operators
NECPA	National Energy Conservation Policy Act
NERC	North American Electric Reliability Corporation
PJM	Pennsylvania–New Jersey–Maryland Interconnection
PUHCA	Public Utility Holding Company Act
PURPA	Public Utility Regulatory Policies Act
QF	qualifying facility
RTO	Regional Transmission Organization

Chapter 10

AC	alternating current
BOEMRE	Bureau of Ocean Energy Management, Regulation and Enforcement
CZMA	Coastal Zone Management Act
DC	direct current
DOI	Department of the Interior

EEZ	exclusive economic zone
EIS	Environmental Impact Statement
EPAct	Energy Policy Act of 2005
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act 1935
MSP	marine spatial planning
NEPA	National Environmental Policy Act
OCS	Outer Continental Shelf
ROW	right of way
RUE	rights of use and easements
TSO	transmission system operator
UNCLOS	United Nations Convention on the Law of the Sea 1982
UNESCO	United Nations Educational, Scientific and Cultural Organization

Chapter 11

EA	Energy Act
EEA	European Economic Area
MPE	Ministry of Petroleum and Energy
NDA	Nature Diversity Act
NWED	Norwegian Water Resources and Energy Directorate
PBA	Planning and Building Act

Chapter 12

NDRC	National Development and Reform Commission
PV	Photovoltaic

Chapter 13

AGTL	Alberta Gas Trunk Line Limited
AUC	Alberta Utilities Commission
CCS	carbon capture and storage
CO ₂	carbon dioxide
DECC	Department of Energy and Climate Change
EOR	enhanced oil recovery
ERCB	Energy Resources Conservation Board
EU	European Union
GHG	greenhouse gas
MS	Member states
Mt	million tonnes
NGTL	Nova Gas Transmission Ltd
OGCA	Oil and Gas Conservation Act
PUB	Public Utilities Board
SGER	Specified Gas Emitters Regulation
TBO	Transportation by Others
TPA	third party access

Chapter 14

ANP	Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (Brazilian Oil, Natural Gas, and Biofuels Agency)
CADE	Administrative Council for Economic Defense
CPAC	Open Competition for Capacity Allocation
LPG	liquefied petroleum gas

Chapter 15

ECNZ	Electricity Corporation of New Zealand Ltd
HVDC	high-voltage direct current
IEA	International Energy Agency
TPM	transmission pricing methodology

Chapter 16

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AEMA	Australian Energy Market Agreement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AUD	Australian dollar
CSIRO	Commonwealth Scientific and Industrial Research Organisation
MCE	Ministerial Council on Energy
NEM	National Electricity Market
NER	National Electricity Rules
NGMC	National Grid Management Council
NTDP	National Transmission Network Development Plan
RIT-T	Regulatory Investment Test for Transmission
SENE	Scale Efficient Network Extension
SWER	single-wire earth return

Chapter 17

capex	capital expenditure
DNO	distribution network operator
EDNO	electricity distribution network operator
EU	European Union
GDNO	gas distribution network operator
IQI	Information Quality Incentive
LENS	Long-term Electricity Networks Scenarios
LCN	Low-carbon Networks
Ofgem	Office of Gas and Electricity Markets
opex	operating expenditure
RIO	Revenue using Incentives to deliver Innovation and Output
RPI	retail price index

RPZ	registered power zone
TNO	transmission network operator
UK	United Kingdom

Chapter 18

EU	European Union
LNG	liquefied natural gas
NRA	National Regulatory Authorities
TPA	third party access
TSO	transmission system operator
UIOLI	use it or lose it

Chapter 19

ACER	Agency for the Cooperation of Energy Regulators
EASEE	European Association for the Streamlining of Energy Exchange
ED	Electricity Directive of 2009 (Directive 2009/72/EC)
ENTSO-E	European Network of Transmission System Operators for Electricity
ENTSO-G	European Network of Transmission System Operators for Gas
ER	Electricity Regulation (Regulation 713/2009)
GD	Gas Directive of 2009 (Directive 2009/73/EC)
GR	Gas Regulation (Regulation 715/2009)
GSR	Gas Security Regulation
ISO	independent system operator
ITO	independent transmission operator
LNG	liquefied natural gas
NRA	National Regulatory Authorities
NTYNDP	National ten-year network development plan
TSO	transmission system operator
TYNDP	Community-wide ten-year network development plan
UCPTE	Union for the Coordination of Production and Transmission of Electricity
UCTE	Union for the Coordination of Transmission of Electricity

Chapter 20

ACER	Agency for the Cooperation of Energy Regulators
ARegV	Anreizregulierungsverordnung (Incentive Regulation Ordinance)
BGBI.	Bundesgesetzblatt (Federal Gazette)
BNetzA	Bundesnetzagentur (Federal Network Agency)
BVerfG	Bundesverfassungsgericht (Federal Constitutional Court)
DENA	Deutsche Energie-Agentur (German Energy Agency)
EEG	Erneuerbare-Energien-Gesetz (Renewable Energies Act)
EIA	Environmental Impact Assessment
EnLAG	Energieleitungsausbaugesetz (Electricity Grid Expansion Act)
ENTSO-E	European Network of Transmission System Operators for Electricity

EnWG	Energiewirtschaftsgesetz (Energy Act)
ISO	Independent System Operator
ITO	Independent Transmission Operator
NABEG	Netzausbaubeschleunigungsgesetz (Grid Expansion Acceleration Act)
ROG	Federal Regional Planning Act
TEN	trans-European energy networks
UPV	Umweltverträglichkeitsprüfung (Environmental Impact Assessment)
UVPG	Gesetz über die Umweltverträglichkeitsprüfung (Environmental Impact Assessment Act)
VwVfG	Verwaltungsverfahrensgesetz (Administrative Procedure Act)

Chapter 21

E&P	Exploration and Production
FAS	Federal Anti-monopoly Service
FTS	Federal Tariff Service
GTS	gas transmission system
LNG	liquefied natural gas
RAO	a Russian joint stock company
RAO UES	Russian Joint Stock Company of Electricity and Electrification
RSFSR	Russian Soviet Federative Socialist Republic
TN owners	transmission network owners
TPA	third party access
UGS	Unified Gas Supply system

Chapter 22

CCS	carbon capture and storage
NOC	National Oil Company
TPM	transmission pricing methodology
RIIO	Revenue using Incentives to deliver Innovation and Output

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