Energy & Law Series
1. European Energy Law Report I, Martha M. Roggenkamp and Ulf Hammer (eds.)
2. The Regulation of Power Exchanges in Europe, Martha M. Roggenkamp and François Boisselieu (eds.)
5. European Energy Law Report IV, Martha M. Roggenkamp and Ulf Hammer (eds.)

Energy & Law, Volume 5
EUROPEAN ENERGY LAW REPORT IV

Edited by
Martha M. Roggenkamp
Ulf Hammer

intersentia
Antwerpen – Oxford
The Energy & Law Series
The Energy & Law Series is published in parallel with the Dutch series Energie & Recht. Members of the editorial committee are:
Prof. Dr. Martha M. Roggenkamp, University of Groningen and Simmons & Simmons, Rotterdam (editor in chief)
Prof. Dr. Kurt Deketelaere, Institute of Environmental and Energy Law, University of Leuven
Prof. Dr. Leigh Hancher, Allen & Overy, Amsterdam and Tilburg University, Tilburg and Council Member, WRR
Dr. Tom Vanden Borre, Chief Counsellor, Commission for the Regulation of Electricity and Gas (CREG) and University of Leuven

European Energy Law Report IV
Edited by Martha M. Roggenkamp and Ulf Hammer

© 2007 Intersentia
Antwerpen – Oxford
http://www.intersentia.be

D/2007/7849/45
NUR 828

No part of this book may be reproduced in any form, by print, photoprint, microfilm or any other means, without written permission from the publisher.
TABLE OF CONTENTS

LIST OF ABBREVIATIONS ................................................. xvii
LIST OF AUTHORS ..................................................... xxi
FOREWORD .............................................................. xxv
INTRODUCTION .......................................................... xxvii

PART I
ESTABLISHMENT OF AN INTERNAL ENERGY MARKET:
RECENT DEVELOPMENTS IN EU AND NATIONAL LAW

CHAPTER 1
RECENT DEVELOPMENTS IN EU COMPETITION LAW:
BUSY TIMES
Marc van der Woude ..................................................... 3

1. Introduction ................................................................. 3
2. The Sector Inquiry ........................................................ 4
   2.1. Legal Basis ......................................................... 4
   2.2. Main Contents ..................................................... 6
      2.2.1. Market concentration ...................................... 6
      2.2.2. Vertical foreclosure ....................................... 7
      2.2.3. Market integration ........................................ 7
      2.2.4. Transparency .............................................. 8
      2.2.5. Price formation ............................................ 8
3. Decisional Practice ..................................................... 9
   3.1. Gas to gas competition .......................................... 9
   3.2. Gas purchasing contracts ...................................... 10
   3.3. Downstream gas sales contracts ............................. 11
   3.4. Access to infrastructure ..................................... 12
   3.5. Pricing issues ................................................... 13
4. Merger Control .......................................................... 14
   4.1. Who is in charge? ............................................... 14
CHAPTER 2
THE IMPLEMENTATION OF THE 2003 ELECTRICITY AND GAS DIRECTIVES AND SOME OF ITS RAMIFICATIONS IN GERMAN ENERGY LAW
Gunther Kühne and Julia Brand-Türkoglu

1. Introductory Observations: The German Energy Law Scene
2. Focal Points of the Implementation of the 2003 Electricity and Gas Directives in Germany
   2.1. Ambit of the Regulation
   2.2. Transition from Negotiated to Regulated TPA
   2.3. Gas TPA in Particular
   2.4. Grid Access Fees
      2.4.1. Approval of access fees on cost and comparison base
      2.4.2. Incentive Regulation
   2.5. Grid Connection
   2.6. Unbundling
   2.7. Regulatory Authorities
      2.7.1. The Federal Network Agency (FNA) (Bundesnetzagentur)
      2.7.2. State Regulatory Authorities
   2.8. The Relationship between Regulatory Authorities and Antitrust Authorities after the Enactment of the Energy Act 2005
      2.8.1. Competences in the Area of Grid Operation
      2.8.2. Participation of Antitrust Authorities in Regulatory Decision-Making
      2.8.3. Competence of Antitrust Authorities in the Energy Sector
   2.9. Control of Energy Prices within the Triangle of Energy Regulation, Antitrust Law Enforcement and Private Law in Particular
      2.9.1. General Observations
      2.9.2. Energy Regulation
      2.9.3. Antitrust Control
      2.9.4. Private Law
3. Outlook
CHAPTER 3
THE GAS TRANSMISSION REGULATION 1775/2005 – HAS A GENIUS BEEN BORN?
Bram Delvaux ......................................................... 41

1. Introduction ......................................................... 41
2. Background and aims of the Gas Transmission Regulation ............. 43
   2.1. First set of Guidelines on TPA ................................ 43
   2.2. Revised set of Guidelines on TPA ............................. 45
   2.3. Regulation 1775/2005 ............................................ 46
3. Tariffs for access to networks ....................................... 47
   3.1. The Challenge .................................................. 47
   3.2. Transparent and non-discriminatory .......................... 49
   3.3. System integrity and benchmarking as a tariff-setting principle .... 50
   3.4. Reflect actual costs .............................................. 51
   3.5. Facilitate efficient gas trade and competition ..................... 51
   3.6. Not restrict market liquidity nor distort trade .................. 52
4. Third party access services ......................................... 52
5. Capacity allocation and congestion management procedures ........... 54
   5.1. Capacity allocation mechanisms ................................ 54
   5.2. Congestion management procedures ............................ 56
       5.2.1. Contractual congestion .................................... 57
       5.2.2. Physical congestion ....................................... 58
       5.2.3. Sector inquiry ............................................. 59
       5.2.4. Case 17/03 of 7 June 2005 of the Court of Justice of the European Communities ......................... 60
6. Transparency requirements ........................................... 61
   6.1. Access to Information ......................................... 61
   6.2. Minimum Standards on transparency ........................... 62
       6.2.1. Technical information .................................... 62
       6.2.2. Tariff information ........................................ 62
       6.2.3. Capacity information ..................................... 63
       6.2.4. Relevant points .......................................... 63
       6.2.5. Confidentiality ............................................ 63
       6.2.6. User-friendliness ........................................ 64
7. Balancing rules ..................................................... 64
8. Trading of capacity rights ......................................... 66
9. Regulatory comitology procedure .................................... 66
10. Conclusion ......................................................... 67
# PART II
DEVELOPING A SUSTAINABLE EUROPEAN ENERGY MARKET

## CHAPTER 4
EMISSION TRADING IN THE EU. Some legal issues in relation to the commitment period 2005–2007

**Silke Muter Goldberg** ............................................................... 71

1. Introduction ................................................................. 71
2. The EU ETS ................................................................. 72
   2.1. The Allocation of Allowances .................................. 72
   2.2. The Nature of an Allowance .................................... 74
       2.2.1. EU parameter ................................................. 74
       2.2.2. United Kingdom .............................................. 75
       2.2.3. Germany ....................................................... 76
       2.2.4. The Netherlands ............................................. 78
       2.2.5. Other Member States ....................................... 79
3. UK vs. Commission ......................................................... 81
   3.1. Introduction ......................................................... 81
   3.2. Background to the proceedings ................................ 81
   3.3. Findings of the Court ............................................. 83
4. Inconsistencies arising from base-line determinations ........... 83

## CHAPTER 5
THE NEW EUROPEAN ENERGY POLICY. Future challenges – future regulatory frameworks?

**Leigh Hancher** ................................................................. 87

1. Introduction ................................................................. 87
2. The Green Paper of March 2006 ....................................... 87
3. Regulatory Risk ............................................................ 90
4. An Energy Policy for Europe ........................................... 91
5. The Internal Energy Market ............................................. 92
   5.1. Unbundling .......................................................... 93
   5.2. Effective Regulation .............................................. 93
   5.3. The Next Six Core Areas ....................................... 95
6. The Internal Market: towards a new regulatory model? .......... 97
7. European Regulatory Institutions ...................................... 98
   7.1. The ERGEG ........................................................ 98
   7.2. Legal basis and organisation of the ERGEG ................. 99
2.3. Directive 96/91/EC on Integrated Pollution Prevention and Control ........................................... 138
2.4. The Energy Star Regulation ........................................... 139
2.6. The Second Internal Electricity and Gas Market Directives .......... 140
2.7. The Emissions Trading Directive ........................................... 140

3. The Green Paper on Energy Efficiency or Doing More with Less .......... 144
3.1. Barriers to Improved Energy Efficiency ........................................... 144
3.1.1. Lack of Information ........................................... 144
3.1.3. Misplaced incentives – the “split-incentive” problem .......... 145
3.1.4. Misleading Prices ........................................... 145
3.1.5. Technical Barriers ........................................... 146
3.1.6. Regulatory Failures ........................................... 147
3.2. Policy Options ........................................... 147
3.2.1. Research and Technological Development .......... 148
3.2.2. Benchmarking National Action Plans .......... 148
3.2.3. Better Use of Taxation ........................................... 149
3.2.4. Better Targeted State Aid ........................................... 149
3.2.5. Public Procurement ........................................... 149
3.2.6. Financing Instruments ........................................... 150
3.2.7. Buildings ........................................... 150
3.2.8. Domestic Appliances ........................................... 151
3.2.9. Information and Protection of Consumers .......... 151
3.2.10. Mandatory Provision of Energy Services .......... 151
3.2.11. White Certificates ........................................... 153
3.2.12. Voluntary Agreements ........................................... 153
3.2.13. Promotion of Alternative Modes of Electricity Production .......... 154
3.2.14. International cooperation ........................................... 154
3.3. The Council’s Conclusions on Climate Change and Energy Efficiency ........................................... 155
3.4. The European Parliament’s Resolution on the Green Paper on Energy Efficiency ........................................... 156
3.5. Public Consultation ........................................... 157
   4.1. Energy Efficiency within the Commission's New Energy Strategy ... 157
   4.2. The Council's Appraisal .................................................. 158
   4.3. The Report of the European Parliament ............................... 158
   4.4. Reports of the High Level Group on Competitiveness, Energy and the Environment ............................................. 159
   5.1. Overview of the Proposed Energy Efficiency Initiatives ............ 161
       5.1.1. Dynamic Energy Performance Requirements for Energy-Using Products, Buildings and Energy Services ....... 161
       5.1.2. Changing Energy Behaviour ........................................ 162
       5.1.3. Financing Energy Efficiency, Economic Incentives and Energy Pricing ................................................. 162
       5.1.4. Improving Energy Transformation ................................ 163
       5.1.5. International Partnerships ........................................... 163
   5.2. The Council's Response to the Action Plan ............................ 164
   6.1. The Promotion of Energy Efficiency by Further Liberalisation of the Energy Markets ............................................. 166
   6.2. The Role of Research and Technological Development ............. 167
   6.3. Miscellaneous .................................................................. 168
7. Conclusion ............................................................................. 169

PART III
ENERGY EFFICIENCY AND TRADE IN WHITE CERTIFICATES

CHAPTER 8
WHITE CERTIFICATES: PRINCIPLES AND APPROACHES
ANTONIO CAPOZZA .............................................................. 173

1. Preface ............................................................................. 173
2. A White Certificates scheme .................................................. 175
   2.1. Driving principles ............................................................. 175
   2.2. Possible implementation alternatives ................................. 177
3. Some comparisons among national schemes based on White Certificates 180
   3.1. Why different national schemes? ...................................... 180
   3.2. Possible choices on Obliged Agents ................................. 181
   3.3. Approaches to energy savings evaluation ............................ 182
4. Critical items ................................................................. 185
   4.1. Interaction with other energy savings policies .......................... 185
   4.2. Cross-border trade of White Certificates .............................. 186
5. Conclusions ................................................................. 187

CHAPTER 9
WHITE CERTIFICATES IN ITALY
WALTER GRATIERI ............................................................. 189

1. Preface ................................................................. 189
2. The Italian Energy Efficiency Scheme ..................................... 190
   2.1. Legislative Drivers .................................................. 190
   2.2. Obligations and Obliged Parties .................................... 190
   2.3. Eligible Projects .................................................... 192
   2.4. The White Certificates .............................................. 192
   2.5. Energy Savings Evaluation ......................................... 193
   2.6. The Market Place .................................................... 194
3. Results After The First Year Of Implementation ......................... 195
4. Conclusions ................................................................. 197

CHAPTER 10
THE ENERGY SAVINGS CERTIFICATES SCHEME IN FRANCE
STÉPHANIE MONJON ............................................................ 199

1. Introduction ............................................................. 199
2. A short presentation of the instrument .................................... 200
   2.1. What are white certificates? ....................................... 201
   2.2. The main principles of the instrument ............................. 201
3. The French system ....................................................... 202
   3.1. Who are the obliged agents? ...................................... 202
   3.2. The obligation ....................................................... 202
   3.3. Penalty for non-compliance ....................................... 205
   3.4. Eligible actors ....................................................... 205
   3.5. Eligible actions ...................................................... 205
   3.6. A certificates market? ............................................. 206
4. Conclusion ................................................................. 207
CHAPTER 11
OPTIONS FOR A WHITE CERTIFICATES SCHEME
IN THE NETHERLANDS
VLASIS OIKONOMOU .............................................. 209

1. Introduction ...................................................... 209
2. Policy background ........................................... 210
3. Options for a White Certificates schemes in the Netherlands .......... 212
4. Evaluating energy savings under a White Certificates scheme .......... 215
5. Current Status of application .................................. 219

CHAPTER 12
THE UK ENERGY EFFICIENCY COMMITMENT
VLASIS OIKONOMOU .............................................. 221

1. Introduction ...................................................... 221
2. Energy efficiency policies in the UK ................................ 223
3. Energy efficiency commitment functioning .......................... 225
6. Experiences from the schemes .................................. 231
   Annex I. Database of UK’s energy efficiency improvement policy instruments ......................................................... 235
   Annex II. Illustrative measures under the Energy Efficiency Commitment ................................................................. 237

PART IV
THE ESTABLISHMENT OF CROSS-BORDER SUBSEA INTERCONNECTORS:
THE NORNED CABLE

CHAPTER 13
SUBMARINE ELECTRICITY AND GAS INTERCONNECTORS –
A TREATY PERSPECTIVE
MARThA M. ROGGENKAMP ........................................... 241

1. Introduction ...................................................... 241
2. Historical development of submarine cables and pipelines in Europe .. 243
   2.1. The beginning: the construction of telegraph cables .......... 243
   2.2. Then: the electricity cables .................................. 243
2.3. And later: the pipelines ........................................ 244
2.3.1. Introduction .............................................. 244
2.3.2. Shore to shore pipelines .............................. 244
2.3.3. Field to shore pipelines .............................. 245
3. The legal framework for constructing and operating submarine
   energy networks ............................................. 246
3.1. Introduction .............................................. 246
3.2. The UN Conventions on the Law of the Sea ................. 247
   3.2.1. Offshore Zones ...................................... 247
   3.2.2. Offshore jurisdiction ............................... 249
3.3. Jurisdiction over offshore cables and pipelines ............ 250
   3.3.1. Introduction ...................................... 250
   3.3.2. Jurisdiction over field to shore pipelines ....... 251
   3.3.3. Jurisdiction over interconnectors ................. 252
   3.3.4. Difference between cables and pipelines ........ 253
4. International Agreements ..................................... 253
4.1. Introduction .............................................. 253
4.2. Cross-border offshore-onshore pipelines ................... 254
   4.2.1. Introduction ...................................... 254
   4.2.2. The Norwegian pipeline agreements .............. 254
   4.2.3. The role of the transit state ...................... 255
4.3. Shore to shore pipelines .................................. 257
   4.3.1. Introduction ...................................... 257
   4.3.2. Definition of jurisdiction ....................... 258
   4.3.3. The pipeline's construction and decommissioning . 259
   4.3.4. Safety and environmental protection and carrying
          out inspections .................................. 260
   4.3.5. Management ........................................ 261
   4.3.6. The transmission of natural gas .................. 261
   4.3.7. Taxes .............................................. 263
   4.3.8. The Interconnector Consultation Group and dispute
          resolution ........................................... 263
   4.3.9. Some final comments on the interconnector agreements . 263
5. Concluding remarks ........................................ 264
CHAPTER 14
A REGULATOR’S VIEW ON THE NORNED CABLE –
A MISSING LINK?
CAREL VAN DER LIPPE and PAUL MEIJER. . . . . . . . . . . . . . . . . . . . . . .  267
1. Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  267
2. Legal settings . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  267
3. Two types of cable . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  268
4. Benefits of interconnector capacity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  269
5. Application of TenneT . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  270
6. Preparatory procedure . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  271
7. Grounds for assessment . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  271
8. Assessment of the application by DTe . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  272
   8.1. Social benefits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  272
   8.2. Technical aspects . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  274
   8.3. Market coupling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  274
   8.4. Economic lifespan . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  276
   8.5. Risks . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  276
   8.6. Non-quantifiable effects . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  277
   8.7. Socio-economic cost-benefit analysis . . . . . . . . . . . . . . . . . . . . . . . . . .  277
9. Conditions to the approval . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  278
10. Further steps . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  279

CHAPTER 15
INTERCONNECTORS AND MARKET COUPLING –
ILLUSTRATED BY NORNED
ULF HAMMER . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  281
1. Introduction: The Sector Inquiry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  281
2. Market-Based Methods for Allocating Limited Interconnector Capacity. 282
   2.1. Definitions – allocation methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  282
   2.2. Capacity markets – explicit auctions . . . . . . . . . . . . . . . . . . . . . . . . . .  283
   2.3. Energy markets – implicit auctions . . . . . . . . . . . . . . . . . . . . . . . . . . . .  284
      2.3.1. Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  284
      2.3.2. Market splitting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  285
      2.3.3. Market coupling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  285
3. Market Coupling Through NorNed . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  286
   3.1. Two electricity systems with different characteristics . . . . . . . . . . . .  286
   3.2. The NorNed cable . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  288
   3.3. Market Coupling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  288

Intersentia

Persoonlijke kopie van ()
CHAPTER 16
REGULATED VS. MERCHANT TRANSMISSION INVESTMENT
HAMILCAR P.A. KNOPS AND HANNEKE M. DE JONG

1. Introduction ................................................. 293
2. What is an 'interconnector'? ............................. 294
3. Regulated vs. merchant: analysis of the investment process .... 297
4. The investment process: examples from practice ............ 300
   4.1. Initiative and economic stage (the PJM case) .......... 300
   4.2. Financial stage (the Murraylink case) ............... 301
   4.3. Regulatory stage (the Estlink case) .................. 302
   4.4. Decisive stage (the two-staged NorNed case) ......... 303
5. Regulated vs. merchant: The cost-benefit analysis ......... 304
   5.1. Elements of the cost-benefit analysis ............... 304
   5.2. Financing cost: regulated versus merchant investment . 304
   5.3. Project revenues: regulated versus merchant investment . 305
   5.4. Remarks concerning the private/public cost-benefit analysis .... 307
6. Cost-benefit analysis: incorporating project risk ............ 307
   6.1. Weighted Average Cost of Capital (WACC) .......... 307
   6.2. Determination of the project-specific WACC .......... 308
   6.3. Other risk considerations ............................ 309
7. Merchant investment: regulatory issues ...................... 310
   7.1. The special regulatory regime for merchant interconnectors .... 310
   7.2. International coordination of the exemption .......... 312
   7.3. Choice of capacity: private or welfare optimum? ....... 313
   7.4. Operation of merchant interconnections ............... 314
   7.5. Additional parallel investment ........................ 315
   7.6. Market power .......................................... 315
   7.7. Merchant investment on the initiative of a TSO ....... 316
   7.8. Merchant interconnection: a Trojan horse? ........... 317
8. Conclusion ................................................... 317
LIST OF ABBREVIATIONS

AC Alternating Current
ACCC Australian Competition and Consumer Commission
AEEG Authority for the Electrical Energy and Gas
AöR Archiv des öffentlichen Rechts
BBL Bacton-Balgzand pipeline
BEB Gewerkschaften Brigitta und Elwerath Betriebsführungsgesellschaft mbH
BGB Bürgerliches Gesetzbuch (German Civil Code)
BGHZ Entscheidungssammlung des Bundesgerichtshof in Zivilsachen (Official Collection of the Federal Supreme Court in Civil Cases)
BRE Building Research Establishment
BTOElt Bundestarifordnung Elektrizität (Federal Electricity Tariff Ordinance)
CCGT Combined Cycle Gas Turbine
CDM Clean Development Mechanism
CEE Certificats d’économies d’énergie (energy savings certificates)
CEER Council of European Energy Regulators
CFI Court of First Instance
CHP Combined Heat and Power
DC Direct Current
DEFRA Department of Environment, Food and Rural Affairs (Great Britain)
DETR (former) Department for Transport, Local Government and the Regions (Great Britain)
DfT Department for Transport (Great Britain)
DG TREN Directorate-General Energy & Transport
DONG Dansk Olie og Naturgas (Danish Oil and Natural Gas Company)
DSO Distribution System Operator
DTe Directie Toezicht Energie (Dutch Office of Energy Regulation)
DTI Department of Trade and Industry (Great Britain)
EA Eligible Agent
EAR Energy Act Regulations
EDF Électricité de France
EDP Electricidade de Portugal
EE Energy Efficiency
EEA European Economic Area
List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC</td>
<td>Energy Efficiency Commitment</td>
</tr>
<tr>
<td>EEAP</td>
<td>Energy Efficiency Action Plan</td>
</tr>
<tr>
<td>EELR</td>
<td>European Energy Law Report</td>
</tr>
<tr>
<td>EEAP</td>
<td>European Environment Law Review</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
</tr>
<tr>
<td>EFET</td>
<td>European Federation of Energy Traders</td>
</tr>
<tr>
<td>EMA</td>
<td>Environment Management Act</td>
</tr>
<tr>
<td>EMA</td>
<td>Eco-Management and Audit Scheme</td>
</tr>
<tr>
<td>ENEL</td>
<td>Ente Nazionale per l’Energia Elettrica (Italian leading electricity company)</td>
</tr>
<tr>
<td>ENI</td>
<td>Ente Nazionale Idrocarburi (National Entity for Hydrocarbons in Italy)</td>
</tr>
<tr>
<td>EPA</td>
<td>Energy Performance Advice</td>
</tr>
<tr>
<td>EPBD</td>
<td>Energy Performance in Buildings Directive</td>
</tr>
<tr>
<td>EPN</td>
<td>Energy Performance Standard</td>
</tr>
<tr>
<td>ERG</td>
<td>European Communications Regulators Group</td>
</tr>
<tr>
<td>ERGEG</td>
<td>European Regulators’ Group for Energy and Gas</td>
</tr>
<tr>
<td>EnWG</td>
<td>Energiewirtschaftsgesetz (German Energy Act)</td>
</tr>
<tr>
<td>ESCO</td>
<td>Energy Service Company</td>
</tr>
<tr>
<td>EST</td>
<td>Energy Saving Trust</td>
</tr>
<tr>
<td>ETSO</td>
<td>European Transmission System Operators</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EU ETS</td>
<td>European Union Emission Trading Scheme</td>
</tr>
<tr>
<td>FCO</td>
<td>Federal Cartel Office (Bundeskartellamt)</td>
</tr>
<tr>
<td>FNA</td>
<td>Federal Network Agency (Bundesnetzagentur)</td>
</tr>
<tr>
<td>GDF</td>
<td>Gaz de France</td>
</tr>
<tr>
<td>GDP</td>
<td>Gás de Portugal</td>
</tr>
<tr>
<td>GFU</td>
<td>Gassforhandlingsutvalget (Former System of Gas Pooling in Norway)</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gas</td>
</tr>
<tr>
<td>GME</td>
<td>Electricity Market Operator (Gestore Mercato Elettrico)</td>
</tr>
<tr>
<td>GWB</td>
<td>Gesetz gegen Wettbewerbsbeschränkungen (German Competition Act or Antitrust Act)</td>
</tr>
<tr>
<td>HEES</td>
<td>Home Energy Efficient Scheme</td>
</tr>
<tr>
<td>HNG</td>
<td>Hovedstadenes naturgasselskab (Natural Gas Distribution Company in Copenhagen)</td>
</tr>
<tr>
<td>IAEE</td>
<td>International Association for Energy Economics</td>
</tr>
<tr>
<td>IEA</td>
<td>International Energy Agency</td>
</tr>
<tr>
<td>IEA DSM</td>
<td>International Energy Agency Demand Side Management Programme</td>
</tr>
<tr>
<td>ILEX</td>
<td>Institute of Legal Executives</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>ILEX</td>
<td>British energy consultancy company</td>
</tr>
<tr>
<td>IPPC</td>
<td>International Plant Protection Convention</td>
</tr>
<tr>
<td>IR</td>
<td>Infrastruktur Recht (Infrastructure Law)</td>
</tr>
<tr>
<td>ISO</td>
<td>Independent System Operator</td>
</tr>
<tr>
<td>JEEPL</td>
<td>Journal for European Environmental and Planning Law</td>
</tr>
<tr>
<td>LNG</td>
<td>Liquefied Natural Gas</td>
</tr>
<tr>
<td>MOL</td>
<td>Magyar Olaj- és Gázipari Rt (Hungarian Oil &amp; Gas Company Plc)</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MPE</td>
<td>Norwegian Ministry of Petroleum and Energy</td>
</tr>
<tr>
<td>NAP</td>
<td>National Allocation Plan</td>
</tr>
<tr>
<td>NEA</td>
<td>B.V. Nederlands Elektriciteit Administratiekantoor (Dutch Electricity Administration Office)</td>
</tr>
<tr>
<td>NEL</td>
<td>Nordic Energy Link</td>
</tr>
<tr>
<td>NEMMNO</td>
<td>National Electricity and Market Management Company</td>
</tr>
<tr>
<td>NMa</td>
<td>Nederlandse Mededingingsautoriteit (Dutch Competition Authority)</td>
</tr>
<tr>
<td>NPS</td>
<td>Nord Pool Spot</td>
</tr>
<tr>
<td>NRA</td>
<td>National Regulatory Agencies</td>
</tr>
<tr>
<td>OA</td>
<td>Obliged Agent</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OFGEM</td>
<td>Office of Gas and Electricity Markets (Great Britain)</td>
</tr>
<tr>
<td>OGEL</td>
<td>Oil, Gas and Electricity Intelligence</td>
</tr>
<tr>
<td>ONP</td>
<td>Open Network Provision</td>
</tr>
<tr>
<td>PDC</td>
<td>Price Dependency Curve</td>
</tr>
<tr>
<td>PEGO</td>
<td>Platform for Energy Transition in the Built Environment</td>
</tr>
<tr>
<td>PJM</td>
<td>Pennsylvania-New Jersey-Maryland Interconnection, a set of regional transmission systems of the U.S.</td>
</tr>
<tr>
<td>PLUTO</td>
<td>PipeLine Under The Ocean</td>
</tr>
<tr>
<td>RdE</td>
<td>Recht der Energiewirtschaft</td>
</tr>
<tr>
<td>REB</td>
<td>Regulating Energy Tax (Regulerende Energiebelasting)</td>
</tr>
<tr>
<td>RES</td>
<td>Renewable Energy Sources</td>
</tr>
<tr>
<td>REZ</td>
<td>Renewable Energy Zone</td>
</tr>
<tr>
<td>RGZ</td>
<td>Entscheidungen des Reichgerichts in Zivilsachen (Official Collection of the Supreme Court in Civil Cases)</td>
</tr>
<tr>
<td>RTE</td>
<td>Réseau de Transport d’Électricité (France)</td>
</tr>
<tr>
<td>RWE</td>
<td>Rheinisch-Westfälisches Elektrizitätswerk AG</td>
</tr>
<tr>
<td>NEMMCO</td>
<td>National Electricity and Market Management Company</td>
</tr>
<tr>
<td>NJW</td>
<td>Neue Juristische Wochenschrift</td>
</tr>
<tr>
<td>NRA</td>
<td>National Energy Regulatory Authority</td>
</tr>
<tr>
<td>SEP</td>
<td>nv Samenwerkende elektriciteitsproduktiebedrijven (Dutch Association of Electricity Production Companies)</td>
</tr>
</tbody>
</table>

Intersentia

xix
### List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKM</td>
<td>Norwegian energy consultancy company</td>
</tr>
<tr>
<td>SMP</td>
<td>Significant Market Power</td>
</tr>
<tr>
<td>TELI</td>
<td>Tijdelijke Energiebesparing Lagere Inkomens (<em>Energy savings tender for lower incomes</em>)</td>
</tr>
<tr>
<td>TPA</td>
<td>Third Party Access</td>
</tr>
<tr>
<td>TPF</td>
<td>Third Party Financing</td>
</tr>
<tr>
<td>TSO</td>
<td>Transmission System Operator</td>
</tr>
<tr>
<td>WACC</td>
<td>Weighted Average Cost of Capital</td>
</tr>
<tr>
<td>WbR</td>
<td>Wet beheer Rijkswaterstaatwerken (<em>Dutch Public Works (Management)Act</em>)</td>
</tr>
<tr>
<td>WhC</td>
<td>White Certificates</td>
</tr>
<tr>
<td>ZNER</td>
<td>Zeitschrift für neues Energierecht</td>
</tr>
</tbody>
</table>
LIST OF AUTHORS

Anatole Boute
PhD student, Groningen Centre of Energy Law, Faculty of Law of the University of Groningen, The Netherlands. E-mail: A.J.R.T.Boute@rug.nl

Julia Brand-Türkoglu
Assessor (eligible to the bar), Institute for German and International Mining and Energy Law, Technical University of Clausthal, Germany. E-mail: julia.brand-tuerkoglu@tu-clausthal.de

Antonio Capozza
Researcher and Task Manager, CESI RICERA, Department of Power Systems Economics, Italy. E-mail: capozza@cesiricerca.it

Bram Delvaux
PhD researcher, Institute for Environmental and Energy Law (IEEL), K.U. Leuven and Counsellor of the Private Office of the Vice-Minister-President of the Flemish Government, Belgium. E-mail: bram.delvaux@law.kuleuven.be or bram.delvaux@vlaanderen.be

Eckart Ehlers
Assessor, Research Fellow, Tilburg Law and Economics Center, Tilburg University, The Netherlands. E-mail: eckart.ehlers@uvt.nl

Walter Grattieri
Technical Director, Power System Economics Dpt., CESI RICERCA, Italy. E-mail: walter.grattieri@cesiricerca.it

Ulf Hammer
PhD, Professor of Law, Institute of Maritime Law, University of Oslo, Norway, E-mail: ulf.hammer@jus.uio.no

Leigh Hancher
PhD, Professor of European Law, Tilburg University, The Netherlands and Of Counsel, Allen & Overy, Amsterdam, The Netherlands, E-mail: leigh.hancher@allenovery.com
List of Authors

Hanneke M. de Jong
PhD researcher, Delft University of Technology, The Netherlands, E-mail: h.m.dejong@tum.tudelft.nl

Hamilcar P.A. Knops
PhD researcher, Delft University of Technology and Leiden University, The Netherlands, E-mail: h.p.a.knops@tum.tudelft.nl

Gunther Kühne
PhD, Professor of Law, Director of the Institute for German and International Mining and Energy Law, Technical University of Clausthal and Honorary Professor of Law, University of Göttingen, Germany, E-mail: gunther.kuehne@tu-clausthal.de

Carel van der Lippe
Dutch Office for Energy Regulation (DTe) until February 2007. Currently, he is appointed at the Ministry of Economic Affairs, The Netherlands. E-mail: j.c.vanderlippe@minez.nl

Paul Meijer
Dutch Office for Energy Regulation (DTe) until May 2006 when he joined one of the major incumbent energy companies in the Netherlands. E-mail: paul.meijer@nuon.com

Stéphanie Monjon,
Agency for Environment and Energy Management, Paris, France. E-mail: stephanie.monjon@ademe.fr

Silke Mutter Goldberg
Associate, Herbert Smith, LLP, London, United Kingdom and PhD Researcher at the Groningen Centre of Energy Law, Faculty of Law of the University of Groningen, The Netherlands, E-mail: silke.goldberg@herbertsmith.com

Vlasis Oikonomou
PhD Researcher, SOM, Faculty of Economics, University of Groningen, The Netherlands. E-mail: v.oikonomou@rug.nl

Martha M. Roggenkamp
PhD. Professor of Energy Law, Groningen Centre of Energy Law, Faculty of Law of the University of Groningen, The Netherlands and Of Counsel, Sim-
Marc van der Woude
Partner, Stibbe Law Firm, Brussels, Belgium and Professor of Law, Erasmus University Rotterdam, The Netherlands. E-mail: marc.vanderwoude@stibbe.com
FOREWORD

The editors are very pleased to present the *European Energy Law Report IV*. The *European Energy Law Report* is an initiative taken by the organisers of the European Energy Law Seminar which has been organised on an annual basis since 1989 at Noordwijk aan Zee in the Netherlands. The aim of this seminar is to present an overview of the most important legal developments in the field of EC and national energy law. Whereas the first seminars concentrated on the developments at EC level, which were the results of the establishment of an Internal Energy Market, the focus has now gradually switched to the developments at the national level following the implementation of the EC Directives with regard to the internal electricity and gas markets. This approach can also be found in these reports.

Similar to the *European Energy Law Reports I, II and III* which were presented at the following European Energy Law Seminar, this Report is also the result of the papers presented at the seminar which was held in May 2006. The current report contains four sections representing the following legal topics: Establishment of an Internal Energy Market: Recent Developments in EU and National Law, Developing a Sustainable European Energy market, Energy Efficiency and Trade in White Certificates, and finally, the Establishment of Cross-border Subsea Interconnectors: the Nor-Ned Cable. We are grateful for the support of the speakers at the seminar and their co-operation in rewriting their papers for the purpose of this book. We also would like to thank the authors and co-authors who were not speakers at the seminars but were willing to participate in this project so that we are able to provide you with a “complete” picture of all the topics discussed. Finally, we would like to acknowledge the help and support of the publisher in publishing this book. We are confident that these reports will be part of a good and long-term tradition.

MARTHA ROGGENKAMP and ULF HAMMER
Leiden/Oslo, 4 April 2007
INTRODUCTION

Martha Roggenkamp and Ulf Hammer

The European Energy Law Report IV presents an overview of the most important developments in the field of EU and national energy law as discussed at the 2006 European Energy Law Seminar in Noordwijk aan Zee in the Netherlands. The book is divided into four different parts which each cover a different legal and/or policy development. The order and content of these sections is not necessarily the same as at the seminar.

Establishment of an Internal Energy Market: Recent Developments in EU and National Law

The first section deals with several aspects of the internal energy market process. In Chapter I, Professor Marc van der Woude discusses some recent developments in EU Competition Law and their impact on the energy market. The emphasis is on the sector inquiry, which was launched in the summer of 2005. First, he analyses its legal basis and its main content. Subsequently he discusses some decisional practice regarding the gas sector (gas-to-gas competition, gas purchasing contracts and downstream gas sales contracts) and issues concerning access to energy infrastructure. The last part of the chapter deals with merger control and, inter alia, analyses the E.ON/MOL case and the creation of a Danish champion. In short: busy times.

Chapter II deals with the implementation of the 2003 Electricity and Gas Directives in Germany. The Energy Act implementing these Directives finally entered into force in July 2005. The prime political target of this Act was to intensify competition in the energy sector. The new Act therefore also has had an impact on the competencies of the German anti-trust authorities. The authors pay special attention to the relationship between the newly established energy regulator and the competition authority. Other developments concern the need for unbundling, new tariff regulation following the requirement of introducing a system of regulated third party access and grid connection.

The last chapter in this part, Chapter III, analyses the Gas Transmission Regulation 1775/2005. This Regulation introduces minimum standards for access to the...
transmission networks and complements as such the access provisions of the 2003 Gas Directive. Bram Delvaux first examines the background and aims of the access regime, i.e. the regime on TPA. He then discusses the tarification mechanism. Although most Member States apply an entry-exit tariff structure, such requirement is not explicitly included in the Regulation. Article 3 of the Regulation, which provides a legal basis for member States to develop a methodology to calculate the transmission tariffs, is actually rather broadly phrased. The author addresses the content of this provision in detail. The last part of this chapter deals with a subject closely related to the issue of regulated access and tariffs, i.e. capacity allocation and congestion management. The author discusses both the capacity allocation mechanism and congestion management procedures. Although the author welcomes the entry into force of this Regulation, he poses some critical remarks. He questions the impact of the Regulation on the role of TPA in an internal gas market and suggests that more legislation will be required.

**Developing a Sustainable European Energy Market**

The second part of the book concentrates on the creation of a sustainable energy market. One of the concerns of a sustainable energy market is the need to reduce CO2 emissions. For this purpose a regime of emission allowances trading has been introduced in the EU. Silke Muter Goldberg examines some issues relating to this new trading regime in Chapter IV. First, she discusses the concept of emission allowances, i.e. how they are allocated and more particularly the nature of an allowance. The legal status of an allowance may differ between Member States. She illustrates these differences with examples from the United Kingdom, Germany, The Netherlands and several other Member States. The second part of this chapter involves the National Allocation Plan, and more particularly the controversy between the UK government and the Commission and the subsequent judgment by the European Court of Justice. The third and last part of the chapter involves the base-line determinations and provides the reader with some suggestions for a possible post-2012 or post-Kyoto phase.

Professor Leigh Hancher pays special attention in Chapter V to the new European energy policy. She discusses the Green Paper of 2006 and the more recent Energy Package of January 2007, including the Commission’s action plan. The question is whether the process of reaching an internal energy market requires a new regulatory model. She therefore discusses the role of ERGEG as one of the new regulatory European institutions in the energy sector and compares it with the tasks and the powers of the regulatory network ERG in the telecommunications sector. The proposed ERGEG+ approach seems to be inspired by ERG and may be an important instrument in the quiet regulatory revolution which slowly is taking
place. Be that as it may, the European Commission is becoming more and more a central player in the regulatory process. The extent to which Member States still can play a role in this process remains to be seen.

Chapter VI concerns another element of the regulatory process. Eckart Ehlers examines the role of the Amsterdam and the Berlin Fora in the strive towards an internal energy market. So far, two other regulatory fora have played a crucial role in the development of internal electricity and gas markets: the Florence and Madrid Fora. The activities of the latter two fora were closely linked to the harmonisation process following the Electricity and Gas Directives. The Amsterdam and Berlin Fora are more recent in date. They were established around 2005 and are less clearly connected to a legislative process. Whereas the Berlin Forum also is called the Fossil Fuels Forum and aims at providing a dialogue between the upstream oil, gas and fossil fuels sector and the EU Commission, the absence of any discussion in the Forum of the Hydrocarbons Licensing Directive is surprising. The Amsterdam Forum concerns another element of the energy sector and aims at the promotion of renewable energy sources and energy efficiency. Directive 2001/77/EC plays a crucial role in the need to increase the extent of renewable energy sources. So far discussions in the Amsterdam Forum on the promotion of renewables seem to be limited to the issue of the impact of national support schemes. In addition to the aims and the procedures of both Fora, the author compares their development with the experience of the Florence and Madrid Fora. In order to reach similar results it is necessary to agree on a more explicit focus regarding the ultimate goals to be achieved.

Chapter VII is written by Anatole Boute and provides more insight into the legal and policy framework for the promotion of energy efficiency in the EU. Although energy efficiency measures have been applied since the 1970s following the two energy crises and thus by itself do not constitute new policy goals, a new emphasis is put on the subject of energy efficiency. Reasons for increasing energy efficiency are now more diverse and include the need for security of supply as well as clean air. The author examines the legal instruments still in place such as the Labelling Directive of 1975, the Directive on Integrated Pollution Prevention and Control of 1996, and the more recent Directive on the Energy Performance of Buildings of 2002. He then discusses the financial and political barriers for improving energy efficiency and subsequently provides some policy options such as benchmarking, better use of taxation, voluntary agreements and the introduction of white certificates. Thereafter he examines the impact of the EU Green Paper on energy efficiency, the subsequent action plan on energy efficiency and the role of the new Energy Policy introduced in January 2007.
Energy Efficiency and Trade in White Certificates

There is now a rapid development – both at the EU level and national levels – where market instruments are used as regulatory tools to reach fundamental energy and environmental objectives, i.e. energy efficiency, energy security and reduced greenhouse gas emissions. Several aspects of the EU emissions trading regime have previously been dealt with by Professor Patricia Park in EELR II, and by Silke Muter Goldberg in Chapter IV of this report. Part III of this report discusses in more detail a new market-based instrument to achieve energy efficiency, i.e. the introduction of White Certificates.

The legal starting point is Directive 2006/32/EC on the promotion of energy end-use efficiency and energy services. This Directive is also examined in Chapter VII of this report and calls for a 9% energy efficiency improvement over 9 years. The White Certificates scheme is a market-based regulatory instrument to reach this objective. In Chapter VIII, Antonio Capozza gives a general presentation of the White Certificates scheme. He outlines the principles behind such a scheme, the possible implementation options, and a comparison of the most interesting national approaches (as regards implementation of the scheme).

In Chapter IX, Walter Grattieri goes further into the Italian implementation of such scheme, which has resulted in two “white certificate decrees” of 20 July 2004. He highlights the methodology of the Italian scheme and gives an overview of the results, i.e. the energy savings, obtained in the first year of implementation. By contrast to the regime in other Member States discussed below, White Certificates are traded on the Italian Electricity Exchange (GME).

In Chapter X, Stephanie Monjon presents the French implementation of the White Certificates scheme pursuant to the French Energy Act of 13 July 2005 (and decrees and orders pursuant to this Act). She outlines the main principles of the scheme and then presents its main components. The system differs from the Italian regime as the trade in White Certificates is limited to over-the-counter trade. Most importantly, however, is the fact that the White Certificates regime constitutes a new way of policy making.

The Netherlands has been a frontrunner in innovative energy policies and market mechanisms for climate change and energy efficiency. At present, design options are being discussed in working groups established by the Dutch Ministry of Economic Affairs. In Chapter XI, Vlasis Oikomonou describes design options for a White Certificates scheme in the Netherlands. At the time of writing is was not
yet decided whether this new instrument to improve energy efficiency would be introduced at all.

In the UK, a system similar to White Certificates is being implemented through the Energy Efficiency Commitment scheme. Vlasis Oikonomou presents in Chapter XII this slightly different regime. First, he describes the energy efficiency policies in the UK, i.e. for the first commitment period (2002–2005) and the next two periods (2005–2008 and 2008–2011). Then he examines the way in which the energy efficiency commitment functions in practice, i.e. trading in energy savings and obligations. The last part of this chapter includes an analysis of the experiences from the schemes so far in the UK.

The Establishment of Cross-border Subsea Interconnectors: the NorNed Cable

The fourth section of this report deals with cross-border subsea interconnectors, with special emphasis on the NorNed cable connecting Norway and the Netherlands. In Chapter XIII – before the NorNed cable is discussed in more detail – Professor Martha Roggenkamp makes a comparison between subsea electricity interconnectors and subsea gas pipeline interconnectors from a treaty perspective. She notes that current practice in treaties and agreements is completely different as regards the two types of interconnectors. The regulation of gas pipelines is vested in treaties (bilateral agreements) between sender States and receiving States, while treaties are not utilised as regards electricity interconnectors. She calls for a one policy line for the construction of all subsea interconnectors, i.e. treaties that set out the rights and obligations of the coastal States involved.

In Chapter XIV, Carel van der Lippe and Paul Meijer, explore the considerations that prompted DTe, the regulator for the Dutch energy sector, to give permission to the investment by TenneT, the Dutch system operator, for its part of the NorNed cable. Operation of the cable is scheduled to start in 2008. Costs and benefits are analysed, together with the market coupling mechanism that shall be used to allocate capacity in the cable.

In Chapter XV, Professor Ulf Hammer further analyses the market coupling mechanism. He starts with a European perspective. Market coupling is a new form of implicit auction founded in the recently amended Guidelines to the Regulation on cross-border exchanges in electricity (Regulation no.1228/2003). This method is currently being developed to link regional electricity markets in Europe. This is a development towards the creation of a single European energy market. Market coupling through NorNed represents the latest step in this devel-
development, since it introduces cooperation between power exchanges in addition to cooperation between TSOs.

The NorNed cable is a regulated interconnector, but it started as a merchant initiative. Hamilcar Knops and Hanneke de Jong examine in Chapter XVI the choice between a regulated or a merchant interconnector, mainly from an economic point of view. They analyse the process leading to transmission investment with focus on costs, benefits and risks. Finally, they compare the special regulatory regime for merchant interconnectors with the general regulatory regime for regulated interconnectors in the European legislation. They identify important regulatory issues that remain to be solved as regards merchant interconnectors.