

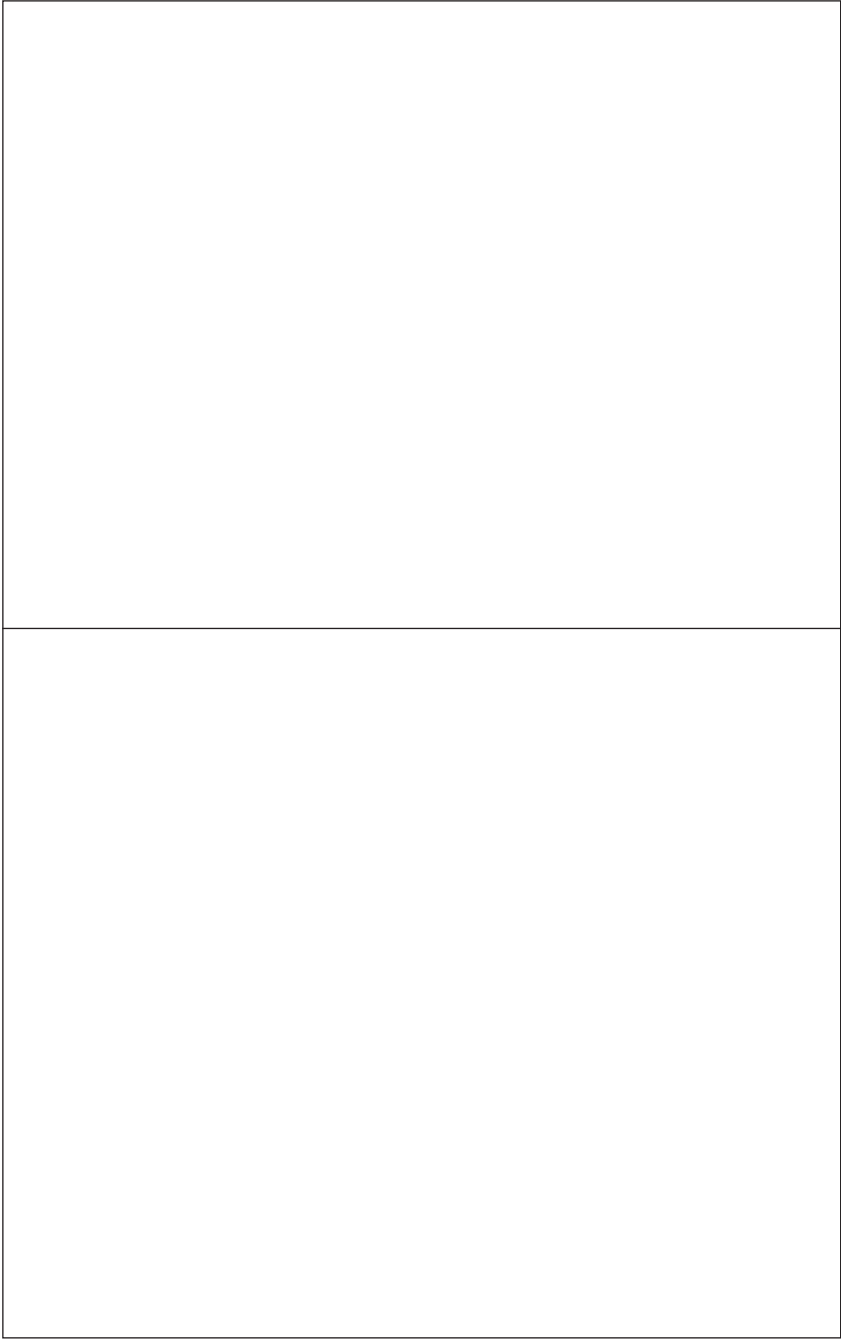
Renate Pirstner-Ebner

European Energy Law

Market System for Electricity and Gas – Energy Supply Security –
Green Energy System of the Future (Green Smart Grid)



Nomos



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Foreword

European energy law is the basis for the energy law in all Member States of the European Union. However, it is also important for the states of South-Eastern Europe and the Black Sea region which have joined together to form the Energy Community to implement the European Union internal energy market rules and principles in their countries. Central to the European energy law are the rules for the electricity and gas market. An additional core element are the provisions for supply security for electricity and gas (e.g. gas emergency plan, principle of solidarity), which have gained particular importance because of the dramatic events in the Ukraine. The Ukraine crisis and the climate crisis show that the future of an energy system lies in the independence from fossil energy sources. Energy independence, supply security, and climate protection can be reached by establishing a green energy system. Separate chapters of this book deal with the main criteria of a green energy system, such as renewable energies, energy efficiency, decentralisation (e.g. energy communities) or digitalisation (e.g. smart meters). Because of their importance, an additional chapter, “energy system of the future” (green smart grid), has been dedicated to these aspects.

The book furthermore covers an introduction to energy law (scope, terminology etc) and an overview of the energy law legislation. This part starts with the European Union competences set in primary law, followed by the relevant secondary law. In addition, the book deals with the European regulatory and coordination organisation (ACER, ENTSO for Electricity, ENTSO for Gas, regional coordination centre etc).

As the book combines the introduction to European energy law with an in-depth analysis of advanced topics (e.g. electricity and gas market, green smart grid) it is directed at an audience of law students and academics. Thus, it may be used in classes on climate protection law, energy law and sustainability on the bachelor as well as on the master and PhD levels. It may also serve as a reliable source of reference for legal professionals and engineers.

I would like to express my sincere thanks to Univ.-Prof. Dr. Christoph Bezemek for supporting this project from the very beginning. I am happy to receive suggestions and criticism and ask you to send them to the following e-mail address: renate.pirstner@uni-graz.at.

Graz, 9.3.2022

Renate Pirstner-Ebner

Table of Contents

List of abbreviations	13
1 Introduction	15
2 Fundamentals of Energy Law	17
2.1 Energy	17
2.2 Forms of energy	17
2.3 Energy sources	18
2.4 Energy law	19
3 Overview of legislation	20
3.1 Competences	20
3.2 Primary European Union Law	22
3.3 Secondary European Union Law	22
3.3.1 Electricity	22
3.3.2 Gas	24
3.3.3 Electricity and Gas	26
3.3.4 Security of supply	27
3.3.5 Climate protection	29
4 Energy Union and governance	33
4.1 Energy Union	33
4.2 Integrated National Energy and Climate Plan	33
4.2.1 Procedure	33
4.2.2 Content	34
4.2.3 Monitoring	37
5 Market System for electricity and gas	39
5.1 Systems and system operators	39
5.2 Principle of equal treatment	40

Table of Contents

5.3	System access and system connection	41
5.3.1.	Terminology	41
5.3.2	Entitlement to system access	42
5.3.3	Refusal of system access	43
5.3.4	Obligation for system connection	44
5.4	Unbundling	45
5.4.1	Terminology and legal development	45
5.4.2	Transmission system operators	47
5.4.2.1.	OU	47
5.4.2.2.	ISO	48
5.4.2.3.	ITO	49
5.4.3	Storage undertakings	53
6	ACER	56
6.1	Legal development	56
6.2	Bodies	56
6.2.1	Director	57
6.2.2	Board of Regulators	57
6.2.3	Administrative Board	58
6.2.4	Board of Appeal	59
6.3	Tasks and powers	60
6.4	Procedure	62
7	Coordination bodies on European Union level	64
7.1	Electricity Coordination Group	64
7.1.1	Legal basis and institution	64
7.1.2	Tasks	65
7.2	Gas Coordination Group	67
7.2.1	Legal basis and institution	67
7.2.2	Tasks	68
7.3	ENTSO for Electricity	69
7.3.1	Terminology, legal basis and organisation	69
7.3.2	Targets and tasks	70
7.3.3	Monitoring	71
7.4	ENTSO for Gas	71
7.4.1	Terminology, legal basis and organisation	71

7.4.2	Targets and tasks	72
7.4.3	Monitoring	73
7.5	EU DSO entity	74
7.5.1	Terminology, legal basis and organisation	74
7.5.2	Tasks	76
7.6	Regional coordination centre	77
7.6.1	Terminology, establishment and organisation	77
7.6.2	Geographical scope	78
7.6.3	Tasks and powers	79
7.6.4	Monitoring- and reporting obligations	80
8	National regulatory authorities	81
8.1	Structure of the authorities	81
8.2	General targets	82
8.3	Tasks	83
8.3.1	Tariffs	83
8.3.2	Network codes and guidelines	83
8.3.3	Network development	84
8.3.4	Investments in generation and storage facilities	84
8.3.5	Comparison tool	84
8.3.6	Consumer protection	84
8.3.7	Market monitoring	85
8.3.8	Decentralised generation	85
8.3.9	Reports	85
8.4	Powers	85
8.5	Complaints	86
8.6	Regional cooperation	86
8.7	Tasks and powers towards regional coordination centres	87
9	Security of supply	88
9.1	Terminology	89
9.2	Electricity sector	90
9.2.1	Competences	91
9.2.2	Electricity crisis scenarios	91
9.2.2.1	Procedure for electricity crisis scenarios – regional level	92

Table of Contents

9.2.2.2.	Procedure for electricity crisis scenarios – national level	93
9.2.2.3.	Content	94
9.2.3	Risk-preparedness plan	94
9.2.3.1.	Procedure	95
9.2.3.2.	Content	96
9.2.4	Crisis levels and crisis management	97
9.2.5	Evaluation and monitoring of electricity crisis	98
9.3	Gas sector	99
9.3.1	Competences	99
9.3.2	Standards for infrastructure and gas supply	100
9.3.3	Risk assessment	101
9.3.4	Preventive action and emergency plans	102
9.3.5	Crisis levels and emergency measures	103
9.3.6	Principle of solidarity	106
9.3.7	Information obligations concerning crisis management and gas supply contracts	107
10	Renewable energy	110
10.1	Targets	111
10.2	Terminology	112
10.3	Support Schemes	112
10.3.1	Types of support schemes	112
10.3.2	Stability and assessment of support schemes	114
10.3.3	Foreign installations	114
10.4	Guarantees of origin	116
10.4.1	Terminology	116
10.4.2	Issuance, period of validity and covered energy sources	116
10.4.3	Content	117
10.4.4	Building and planning provisions	117
10.5	Fuels and liquids	118
10.5.1	Terminology	118
10.5.2	Targets	119
10.5.3	Indirect land-use change	119
10.5.4	Union database	120
10.5.5	Sustainability criteria	120

10.6	District heating and cooling	121
10.6.1	Terminology	121
10.6.2	Targets	122
10.6.3	Network connection	122
10.6.4	Termination	123
10.7	Special procedural provisions	124
10.7.1	General procedural criteria	124
10.7.2	Contact Point	124
10.7.3	Limitation of the procedure duration	125
10.7.4	Simplified procedures	126
11	Energy efficiency	127
11.1	Terminology	127
11.2	Targets	127
11.3	Energy-saving measures	129
11.3.1	Energy efficiency obligation schemes	130
11.3.2	Alternative policy measures	130
11.3.3	Energy audits and energy management systems	131
12	Decentralisation	133
12.1	Single producers	133
12.1.1	General definition	134
12.1.2	Rights of active customers and renewable self-consumers	134
12.1.3	Rights for active customers	135
12.1.4	Rights and regulatory framework for renewable self-consumers	135
12.1.5	Obligations for active customers and renewable self-consumers	136
12.2	Energy communities	137
12.2.1	Definition	137
12.2.2	Rights of citizen energy communities and renewable energy communities	137
12.2.3	Rights of citizen energy communities	138
12.2.4	Legal framework for renewable energy communities	139
12.2.5	Obligations	139

Table of Contents

13 Digitalisation – smart meters	141
13.1 Terminology	141
13.2 Introduction-, consultation- and installation obligations	142
13.3 Functional requirements	144
13.4 Heating, cooling and domestic hot water	144
14 Storage	146
14.1 Terminology	146
14.2 Types of storage	147
14.3 System access and system connection	148
14.3.1 Electricity storage facilities	148
14.3.2 Gas storage facilities	149
15 Energy system of the future	150
15.1 Terminology and criteria	150
15.2 Obligation to introduce smart grids	154
15.3 Monitoring obligation of the regulatory authority	155
15.4 Integrated National Energy and Climate Plan	155
15.5 Network development plan	156
Register	161

List of abbreviations

CD	Commission Delegated
COM	European Commission
EU DSO	European entity for Distribution System Operators
EC	European Community
EEC	European Economic Community
ECG	Electricity Coordination Group
ECJ	European Court of Justice
ECSC	European Coal and Steel Community
ERCC	Emergency Response Coordination Centre
ENTSO	European Network of Transmission System Operator
EU	European Union
EURATOM	European Atomic Energy Community
GCG	Gas Coordination Group
ISO	Independent System Operator
ITO	Independent Transmission Operator
NECP	Integrated National Energy and Climate Plan
OJ	Official Journal of the European Union
OU	Ownership Unbundling
PCI	Project of Common Interest
SME	Small and Medium-sized Enterprise
SOR	System Operation Region
TFEU	Treaty on the Functioning of the European Union
UNFCCC	United Nations Framework Convention on Climate Change
VIU	Vertically Integrated Undertaking

1 Introduction

A scientific discipline must identify conflicts and set rules to settle them peacefully.¹ At the beginning of the electricity and gas market liberalisation, conflict regulation was a core element of this young discipline. In 1996 and 1998, the European Union (from now on: EU) determined the first provisions for the internal electricity and gas market.² These provisions were to introduce a competitive electricity and gas market and reduce the monopoly situations of the energy companies.

Energy law is not only a young but also a dynamic scientific discipline. Dynamic, because two others followed the first energy liberalisation package in 2003 and 2009.³ In 2018 and 2019, the EU adopted legal acts concerning the “Clean Energy for all Europeans” package focusing on the internal electricity market, renewable energies, and energy efficiency⁴, and in 2021 the European Commission proposed essential amendments implementing its “Green Deal Strategy”.⁵ This “Green Deal Package” includes, among others, new provisions for renewable energy, energy efficiency, renewable gases and hydrogen. The energy packages in force completely removed the monopoly position of energy undertakings as energy suppliers. Therefore, the EU introduced rules for network access, equal treatment and unbundling.⁶ An essential element of the “unbundling” requirements is to separate the network operation and energy supply from each other, allowing the establishment of a free market for electricity and gas products. Nevertheless, the network undertakings operate the system in a monopoly

1 Matthias Schmidt-Preuß, ‘Energierrecht – eine innovative wissenschaftliche Disziplin’ in Stefan Storr (ed) *Neue Impulse für die Energiewirtschaft* (Jan Sramek 2012) 1 (5); see also Adrian Bradbrook, ‘Energy Law as an Academic Discipline’ (1996) *Journal of Energy & Natural Resources Law* 193.

2 Electricity Market Directive 1996/92/EC and Gas Market Directive 98/30/EC.

3 See details in chapter 3.3.1. and 3.3.2.

4 Clean energy for all Europeans package completed: good for consumers, good for growth and jobs, and good for the planet | European Commission (europa.eu) (state of the databasis: December 2021) and see details in chapter 3.3.

5 See the two parts of the “Green Deal Package” from 2021 – first part: Delivering the European Green Deal | European Commission (europa.eu) and second part (“hydrogen and decarbonised gas”) package: New EU framework to decarbonise gas markets (europa.eu).

6 See details in chapter 5.2., 5.3. and 5.4.

situation. Therefore, the regulatory authorities of the Member States must monitor them.

The regulation of the energy industry is a contrary act to the liberalisation of the energy market. However, special EU rules are necessary due to the monopoly position of the network operators and the guarantee of the security of supply. The regulating body at the EU level is the ACER. It mainly coordinates the cooperation of the national regulatory authorities who at the national level responsible for the market regulation.

This book provides an overview of energy law legislation. One central chapter is the market system for gas and electricity, while separate chapters cover the regulatory bodies (ACER, national regulatory authorities). Additionally, the book includes the European energy coordination institutions like the ENTSO for Electricity, the ENTSO for Gas, the EU DSO entity, the Electricity Coordination Group, the Gas Coordination Group and the regional coordination centres. A further central chapter deals with the security of electricity and gas supply.

Energy law is also an innovative discipline. Correspondingly, the book includes chapters that are essential for our energy system of the future. These are the chapters renewable energies, energy efficiency, storage, decentralisation and digitalisation. The book ends with a separate chapter, “Energy system of the future”, providing an overall view of the legal areas mentioned before and an outlook on into the future of energy in the EU.