CLIMATE CHANGE AND EUROPEAN EMISSIONS TRADING

Lessons for Theory and Practice

Edited by Michael Faure and Marjan Peeters

NEW HORIZONS IN ENVIRONMENTAL LAW

Climate Change and European Emissions Trading

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Climate Change and European Emissions Trading

NEW HORIZONS IN ENVIRONMENTAL LAW

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Environmental law is an increasingly important area of legal research. Given the increasingly interdependent web of global society and the significant steps being made towards environmental democracy in decision-making processes, there are few people that are untouched by environmental lawmaking processes.

At the same time, environmental law is at a crossroads. The command and control methodology that evolved in the 1960s and 1970s for air, land and water protection may have reached the limit of its environmental protection achievements. New life needs to be injected into our environmental protection regimes. This series seeks to press forward the boundaries of environmental law through innovative research into environmental protection standards, procedures, alternative instruments and case law. Adopting a wide interpretation of environmental law, it includes contributions from both leading and emerging European and international scholars.

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Abbreviations

AAU	Assigned Amount Unit
AB	Assembly Bill
AG	Advocate General
AUS ETS	Australian Emissions Trading Scheme
BAT	Best Available Technique
BERR	Department for Business, Enterprise and Regulatory Reform
BNA International Environment Daily	Bureau of National Affairs International Environment Daily
BRC	Better Regulation Commission
BREFS	Best Available Technology Reference Documents
BVerwG	Bundesverwaltungsgericht
CA ETS	Californian Emissions Trading Scheme
CCA	Climate Change Agreement
CCAP	Center for Clean Air Policy
CCL	Climate Change Levy
CCS	Carbon Capture and Storage
CCX	Chicago Climate Exchange
CDM	Clean Development Mechanism
CEPS	The Centre for European Policy Studies
CER	Certified Emission Reduction
CERT	Carbon Emissions Reduction Target
CETM	Confederación Española de Transporte de Mercancías
CFI	Court of First Instance
CGE	Computable General Equilibrium
CGM	Compagnie Générale Maritime
CH_4	Methane
Chicago Convention	1944 Convention on International Civil Aviation
CHP	Combined Heat and Power
CIRED	International Research Center on Environment and Development
CITL	Community Independent Transaction Log
CJEG	Cahiers Juridiques de l'électricité et du gaz
CMA	Compagnie Maritime d'Affrètement

CNSD	Consiglio Nazionale degli Spedizionieri Doganali
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COM	Commission
CPUC	California Public Utility Commission
CSE	Centre for Sustainable Energy
CT	Carbon Trust
Czech Rep./Cz Rep	Czech Republic
DART	Dynamic Applied Regional Trade
DEFRA	Department for Environment, Food and Rural Affairs
DER	Dwelling Emission Rate
dETS	domestic Emissions Trading Scheme
dnc	declared net capacity
DOE	Department of Environment Northern Ireland
DP	Direct Participant
DTI	Department for Trade and Industry
EC	European Community
ECJ	European Court of Justice
ECR	European Court Reports
EDLE	European Doctorate in Law and Economics
EEA	European Environment Agency
EEC	European Economic Community
EELR	European Energy and Environmental Law Review
EFTA	European Free Trade Area
EHA	Enhanced Capital Allowances
EII	Energy Intensive Industries
E.L.R.	European Law Review
EP	European Parliament
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
EPS	Emission Portfolio Standards
ERU	Emission Reduction Unit
ESS	Energy Supply Sectors
EST	Energy Savings Trust
ETF	Environmental Transformation Fund
ETG	UK Emissions Trading Group
ETR	Emissions Trading Registry
ETS	Emissions Trading Scheme
ETUC	European Trade Union Confederation
EU	European Union
EUAs	European Union emission allowances
EU ETS	European Union's Emissions Trading Scheme

FEEM	Fondazione Eni Enrico Mattei
GAD	Global and Atmospheric Division
GATT agreement	General Agreement on Tariffs and Trade
GHG emissions	Greenhouse Gas emissions
GLA	Greater London Authority
HAP	Horticulture Assistance Package
HFC	Hydrofluorocarbon
H.R.	House of Representatives
IBGE	Institut bruxellois pour la gestion de l'environnement
ICAO	International Civil Aviation Organisation
ICAP	International Carbon Action Partnership
IEA	International Energy Agency
IFIEC	International Federation of Industrial Energy Consumers
INECE	International Network for Environmental Compliance and Enforcement
IPCC	United Nations Intergovernmental Panel on Climate Change
IPPC	Integrated Pollution Prevention and Control
IPTS	Institute for Prospective Technological Studies
ISO	Independent System Operator
ISTAS	Instituto Sindical de Trabajo, Ambiente y Salud
ITL	International Transaction Log
JEEPL	Journal for European Environmental & Planning Law
JI	Joint Implementation
JV ETS	Japanese Voluntary Emissions Trading Scheme
KP	Kyoto Protocol
lCER	long-term CER (Certified Emission Reduction)
LEZ	Low Emission Zone
LSE	Load-Serving Entity
LULUCF	Land use, Land-Use Change and Forestry
Lux./Lux	Luxembourg
MAC	Marginal Abatement Cost
METRO	Maastricht European Institute for Transnational Legal Research
MS	Member States
Mt.	Million tons
MW	Megawatt
MWh	Megawatt hours
N_2O	Nitrous Oxide
NA	Negotiated Agreement
NAP	National Allocation Plan
NBER	National Bureau of Economic Research

NCCR	Swiss National Centre of Competence in Research
NERA	National Economics Research Associates
NFFO	Non-Fossil Fuel Obligation
NGO	Non Governmental Organization
NI-NFFO	Northern Ireland NFFO (Non-Fossil Fuel Obligation)
NL	Netherlands
NO_x	Nitrogen Oxide
NRP	Dutch National Research Programme on Global Air Pollution and Climate Change
NSW GGAS	The New South Wales Greenhouse Gas Abatement Scheme
NZ ETS	New Zealand ETS
OCC	Office of Climate Change
OECD	Organization for Economic Co-operation and Development
OfGEM	Gas and Electricity Markets Authority
OJ	Official Journal
OTC	Ozone Transport Commission
OTH	Other Demand Sectors
PCT	Personal Carbon Trading
PFC	Perfluorocarbon
PJM	Pennsylvania-New Jersey-Maryland
PNA	Plan National d'Allocation
POLES	Prospective Outlook on Long-term Energy Systems
PPC	Pollution Prevention and Control
PRIMES	Price Induced Model of the Energy System
PSR	Performance Standard Rate
R&D	Research and Development
RECLAIM	Regional Clean Air Incentives Market
RFF	Resources for the Future
RGGI	Northeast Regional Greenhouse Gas Initiative
RILE	Rotterdam Institute of Law and Economics
RJEP	La revue juridique de l'entreprise publique
RMU	Removal Unit
ROS	Renewables Obligation (Scotland)
RPS	Renewable Portfolio Standard
RSA	Royal Society for the encouragement of Arts, Manufacturers and Commerce
RTF	Renewable Transport Fuel
RTFO	The Renewable Transport Fuel Obligations Order
RTO	Regional Transmission Organization
RuG	Rijksuriversiteit Groningen

RWE	Rheinisch-Westfälische Elektrizitätswerke AG
SCM agreement	Agreement on Subsidies and Countervailing Measures
SDA	Social Development Agency
SF6	Sulphur Hexafluoride
SIC	Standard Industrial Classification
SMEs	Small and Medium sized Enterprises
UBA	Umweltbundesamt
UK	United Kingdom
USA	United States of America
t	Ton
tCER	temporary CER (Certified Emission Reduction)
TER	Target Emission Rate
TS	Trading Sectors
UKCIP	UK Climate Impacts Programme
UNFCCC	United Nations Framework Convention on Climate Change
WCI	Western Climate Initiative
WRCAI	Western Regional Climate Action Initiative
WTO	World Trade Organization
yr	year
ZfE	Zeitschrift für Energiewirtschaft
ZuG	Zuteilungsgesetz

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PART I

Introduction to the book

1. Introduction

Michael Faure and Marjan Peeters

1. PROBLEM DEFINITION: REASONS FOR THIS BOOK

Emissions trading can no longer be seen as just an interesting theoretical exercise: this market-based approach has developed an increasingly important role, first within the environmental law framework of the USA and later also within that of the EU. The instrument of emissions trading has been applied in order to combat significant environmental problems like acid rain, ozone-depleting substances and climate change. Regarding the two latter problems, the instrument is applied both on the international level as well as on national levels.

Notably for the greenhouse gas emissions problem, emissions trading seems to be very much suited to reaching the necessary reductions in a cost-effective way. In Europe there is now some experience with emissions trading as a result of the implementation of the greenhouse gas Emissions Trading Scheme (EU ETS).[1] The EU ETS is the biggest regional emissions trading system established thus far. The first trading period started on 1 January 2005 and finished on 31 December 2007; the second trading period, during which this book will be published, runs till 2013 and thus comprises five years. In the meantime, only three years after the start of the first trading period, the European Commission released on 23 January 2008 a proposal for a major revision of the EU ETS, which should change the system from 2013 onwards.[2] This proposal includes challenging new topics, like auctioning of allowances, an additional and gradually declining free allocation of allowances on the EU level, and a specific provision for industries facing international competition. The experience with the EU ETS had already

[1] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, OJ L 275/32 25.10.2003.

[2] Proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community, COM(2008)16, Brussels 23.1.2008.

started before 2005, as important decisions regarding the distribution of the tradable allowances to the covered industries needed to be taken before the start of the first trading period. Moreover, the design of the legislative framework necessary for emissions trading was an interesting exercise too, leading to all kinds of new questions. Strikingly enough, those questions, which were in fact quite new for the European governments because there was thus far hardly any experience with this market-based instrument, needed to be answered in an extremely short time period because of the firm deadline set by the politicians aiming to have the EU ETS established before the start of the first commitment period of the Kyoto Protocol.

Moreover, the EU intends to expand its current greenhouse gas emissions trading regime, thereby indeed stressing that this instrument is the core climate change instrument for the EU.[3] Certain member states, like the UK and The Netherlands, intend to adopt domestic measures for applying the instrument to other sources and other pollution problems. In the same vein, the idea of citizens' budgets for carbon emissions is also emerging.[4] Meanwhile, in the USA several initiatives for greenhouse gas emissions trading have been taken at a regional level. In addition, industries initiate voluntary emissions trading activities, not least to prevent future liability claims. In addition, the setting up of a legal framework for trustworthy voluntary emission offsets needs to be considered as well.

The first European experiences with trading of greenhouse gas allowances have thus led to a lot of questions from various perspectives.[5] In this respect it is worthwhile analysing the experience with the ETS in a critical way, aiming to answer the question of what can be learned from this experience at theoretical and policy level, and what lessons thus can be learned for the future application of the instrument. The purpose of this book is to focus on the domestic applications of the emissions trading instrument, especially for greenhouse gases, thereby learning from fresh experiences, critically examining the current practice, and looking to the future for new challenges for the instrument. It may be clear that both lawyers and economists have already questioned the effectiveness of the ETS from various perspectives. For example, lawyers have been critical with regard to the rush for adopting the instrument, and have questioned the flexibility allowed as far as the national

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3 See about EU climate change policy Bothe and Rehbinder (2005) (part II of the book); Deketelaere and Peeters (2006).

4 Starkey and Anderson (2005).

5 See an earlier examination of the US and European greenhouse gas emissions trading developments Hansjürgens (2005). See for a specific examination of allocation issues: Ellerman et al. (2007). A description of the development and content of the initial EU ETS has been elaborated on in Delbeke (2006).