

The Development of a Comprehensive
Legal Framework for the Promotion of
Offshore Wind Power

Energy and Environmental Law and Policy Series

VOLUME 33

Editor

General Editor: Professor Kurt Deketelaere, Professor of Law, University of Leuven, Belgium; Honorary Professor of Law, University of Dundee, UK; Honorary Chief of Staff, Flemish Government; Secretary-General, League of European Research Universities (LERU), Belgium. Kurt's CV – see www.kurtdeketelaere/en/kurt.

Introduction

Environmental protection and energy efficiency/security are important societal challenges. In order to tackle them, policy and legal frameworks are developed at national, regional and global level. Through study and best practices development, the challenges will prove to be solvable.

Contents/Subjects

Environment/Nature/Energy/Climate.

Objective

The aim of this series is to publish works of excellent quality that focus on the study of energy and environmental policy. Through this series the editors:

- contribute to the improvement of the quality of energy/environmental law and policy in general and environmental quality and energy efficiency in particular; increase the access to environmental and energy information for academics, non-governmental organizations, government institutions, and business; and
- facilitate cooperation between academic and non-academic communities in the field of energy and environmental law and policy throughout the world.

Readership

Academics and practitioners in environmental and energy matters.

The titles published in this series are listed at the end of this volume.

The Development of a Comprehensive Legal Framework for the Promotion of Offshore Wind Power

The Lessons from Europe and Pacific Asia

Edited by

Anton Ming-Zhi Gao

Chien-Te Fan



Wolters Kluwer

Published by:

Kluwer Law International B.V.
PO Box 316
2400 AH Alphen aan den Rijn
The Netherlands
Website: www.wolterskluwerlr.com

Sold and distributed in North, Central and South America by:

Wolters Kluwer Legal & Regulatory U.S.
7201 McKinney Circle
Frederick, MD 21704
United States of America
Email: customer.service@wolterskluwer.com

Sold and distributed in all other countries by:

Quadrant
Rockwood House
Haywards Heath
West Sussex
RH16 3DH
United Kingdom
Email: international-customerservice@wolterskluwer.com

Printed on acid-free paper.

ISBN 978-90-411-8397-2

e-Book: ISBN 978-90-411-8398-9

web-PDF: ISBN 978-90-411-8399-6

© 2017 Kluwer Law International BV, The Netherlands

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher.

Permission to use this content must be obtained from the copyright owner. Please apply to: Permissions Department, Wolters Kluwer Legal & Regulatory U.S., 76 Ninth Avenue, 7th Floor, New York, NY 10011-5201, USA. Website: www.wolterskluwerlr.com

Printed in the United Kingdom.

Editors

Anton Ming-Zhi Gao is Associate Professor of Law at Institute of Law for Science and Technology, National Tsing Hua University (NTHU). He received his master degree from National Taiwan University. In October 2005, he began a Ph.D. program at K.U. Leuven, and received his Ph.D. in Law in December 2009. He currently teaches several courses, including Energy Law and Policy and European Environmental Law. He is the Taiwanese scholar with the greatest number of articles published in international energy and environmental law journals. Over the past number of years, he has been very active in international publications concerning investigations into the legal issues of international, European, Asian, and Taiwanese energy laws.

Chien-Te Fan is Professor of Law at National Tsing Hua University (NTHU), where he specializes in energy and environmental law, and the areas of biotechnology and ethic related issues. Prof. FAN received his LLB degree from Soochow University, LLM degree from University of Washington and JD Degree from Puget Sound University. He is also an experienced scholar involving in UNFCCC negotiation process since 2001 in Marrakesh. Moreover, as a speaker, he was also invited to join the side event several times that held in the COPs.

Contributors

Jeremy Firestone has a PhD in Public Policy Analysis from University of North Carolina and a JD from University of Michigan. He is a Professor of Marine Policy and of Legal Studies and is Director of the interdisciplinary Center for Carbon-free Power Integration at the University of Delaware. His research focuses on wind power, with emphasis on spatial planning, social acceptance, economics, and governance. He teaches courses on Renewable Energy Law, Climate Change Policy, Offshore Wind Power, and Ocean and Coastal Law. He has published in *Proceedings of the National Academy of Sciences*, *Energy Policy*, *Wind Energy*, *Renewable Energy*, *Journal of Environmental Planning & Management*, and *Coastal Management* and is on the editorial board of the journal *Energy Research and Social Science*.

Sandra Cassotta is Associate Professor in International, Environmental and Energy Law at the Department of Law of Aalborg University (Denmark) and teaches International Environmental Law, Climate Change, Climate Change and Migration Law, Arctic Environmental Law and Geopolitics. She specializes in environmental damage and liability problems in a multi-level context. Included in her area of interests are human rights, law of the sea (UNCLOS), and environmental security. She is non-resident Research Fellow at the Institute for Security and Development Policy in Stockholm (Sweden) working under the Sino-Nordic Arctic Policy Program. She is also jump external lecturer at Leuven University KU on Malta at the University of Malta (La Valletta) and adjunct professor at the International Centre of Ocean Governance (ICOG) at Western Sydney University, School of Law (Australia). She can be reached at sac@law.aau.dk, Aalborg Universitet, Juridisk Institut, Niels Jernes Vej 6B, 2.05b, 9220 Aalborg Øst, Denmark.

Ulla Steen is associate professor at the Department of Law of Aalborg University. She is Head of the Department of Law. Her areas of interest are Environmental and Energy Law, Environmental Impact Assessment, and EU Law. She has several years of practical experience both in the private and public sector and has a strong international working experience even outside academia. She was associated attorney of law and worked for NIRAS, several years. Her research focus is to improve sustainable

development worldwide by combining business strategies with environmental, EU and Energy Law research related fields from different angles and its relation to climate change and energy global processes. She can be reached at: usteen@law.aau.dk, law.aau.dk, Aalborg University, Niels Jernes Vej 8a, DK-9220 Aalborg.

Navraj Singh Ghaleigh is Senior Lecturer in Climate Law at the University of Edinburgh where he directs two LLM programmes: *Global Environment and Climate Change*; and *Law and Chinese*. He publishes widely in the field, has advised various Parliamentary and Executive bodies, and is a board member of both the *Society of Legal Scholars* and *Climate Strategies*.

Dr. Haifeng Deng is the associate dean and tenured associate professor of Law School, Tsinghua University, China. He is also the vice director of the Center for Environmental, Natural Resources & Energy Law of Tsinghua University and the senior research fellow of the CDM Development and Research Center of Tsinghua University. His research is focusing on the environmental law, nature resource law and energy law. At the same time, he also does some public service to the legal research societies. Now, he is the standing director of China environmental law research society, the director of environmental law research society of Beijing law science society, the standing director and vice general secretary of environmental law research society of China environmental science society and the formal expert of the official version of the legislation on Chinese Climate Change Arrangement Law.

Dr. Alex Wawryk received First Class degrees in Economics and Law, and a PhD in Law, from the University of Adelaide. She is Senior Lecturer in Contract Law and Mining and Energy Law at the Adelaide Law School and is a Barrister and Solicitor of the Supreme Court of South Australia. Alex conducts research into various aspects of energy and natural resources law, including renewable energy law, mining and petroleum regulation, and environmental law. She is an associate editor for OGEL, a specialist online database for Oil, Gas and Energy Law. Alex is a Board member of the Environmental Defenders Office (SA) Inc, and is a member of the IUCN Specialist Group on Energy Law, the Australian Resources and Energy Law Association, and the Institute for Mining, Energy and Resources at the University of Adelaide.

Eubong Lee got a PhD in Law in Seoul National University, South Korea. She has researched for national legislative policy theoretically as well as practically in Korea Legislative Research Institute, a national policy think tank. Her special focus on research is environmental law, renewable energy law and public ethics law. Also, she has taught environmental law in the Graduate School of Environmental Studies, Seoul National University.

Thomas Schomerus (University Professor Dr. iur. Dr. h.c.) studied Law at the Universities of Hamburg and Göttingen from 1976–1981. After finishing his legal traineeship with the second state exam in 1988, he started his career as an administrative official for the city of Hamburg. In 1996, he was appointed professor at the

former University of Applied Sciences, Lüneburg. Since 2004, he holds the chair of public law, in particular energy and environmental law, at Lüneburg University. He was awarded an honorary doctor's degree by the Georgian Technical University, Tbilisi, in 2005. Schomerus worked on several international and national research projects and has published broadly in the fields of energy and environmental law. In 2014, he was appointed Judge at the Higher Administrative Court of Lower Saxony.

Christian Maly holds an MA in Management and Business Development and an LLB from Leuphana University of Lüneburg, Germany. He is specialized in environmental and renewable energy law with a special focus on wind energy. Christian Maly worked as a research associate and is currently a PhD candidate and lecturer at Leuphana University of Lüneburg.

Dr. Catherine Banet is associate professor at the University of Oslo, Scandinavian Institute of Maritime Law, Department of Petroleum and Energy Law, Norway. Her core fields of legal expertise include energy law, petroleum law, environmental law, competition law (in particular state aids), EU/EEA law and law of the sea. She has background from private law practice (Norway, France), the European Commission (DG ENV), US diplomatic mission and academia. She is one of the four academic coordinators of the professional LLM programme North Sea Energy Law Programme (NSELP) and co-organizer of the annual European Energy Law Seminar (EELS). She is a member of the Academic Advisory Group of the Section on Energy, Environment and Infrastructure Law of the International Bar Association, board member of the ECOHZ Renewable Energy Foundation (Norway) and member of the committee on energy and environmental law of the Norwegian Center for Continuing Legal Education.

Summary of Contents

Editors	v
Contributors	vii
Preface	xxv
PART I	
Offshore Wind Power of Highly Developed Countries in Europe	1
CHAPTER 1	
Legal Framework to Develop Offshore Wind Power in Germany <i>Thomas Schomerus & Christian Maly</i>	3
CHAPTER 2	
Legal Framework to Develop Offshore Wind Power in United Kingdom <i>Navraj Singh Ghaleigh</i>	33
PART II	
Offshore Wind Power of Developing Countries in Europe	57
CHAPTER 3	
Legal Framework to Develop Offshore Wind Power in France <i>Catherine Banet</i>	59
CHAPTER 4	
Legal Framework to Develop Offshore Wind Power in Italy <i>Sandra Cassotta & Ulla Steen</i>	87
CHAPTER 5	
Legal Framework to Develop Offshore Wind Power in Norway <i>Catherine Banet</i>	103

Summary of Contents

PART III	
Offshore Wind Power of Developing Countries in the Pacific Asia	143
CHAPTER 6	
Legal Framework to Develop Offshore Wind Power in United States	
<i>Jeremy Firestone</i>	145
CHAPTER 7	
Legal Framework to Develop Offshore Wind Power in Australia	
<i>Alex Wawryk</i>	163
CHAPTER 8	
Legal Framework to Develop Offshore Wind Power in China	
<i>Haifeng Deng</i>	191
CHAPTER 9	
Legal Framework to Develop Offshore Wind Power in Korea	
<i>Eubong Lee</i>	205
CHAPTER 10	
Legal Framework to Develop Offshore Wind Power in Taiwan	
<i>Anton Ming-Zhi Gao</i>	225
Index	253

Table of Contents

Editors	v
Contributors	vii
Preface	xxv
PART I	
Offshore Wind Power of Highly Developed Countries in Europe	1
CHAPTER 1	
Legal Framework to Develop Offshore Wind Power in Germany <i>Thomas Schomerus & Christian Maly</i>	3
§1.01 Historical Review and Current Situation of Offshore Wind Energy in Germany	3
§1.02 Institutional Design for Offshore Wind Energy	8
[A] The “Main” Authority for the Development of Offshore Wind Power	8
[B] “Supplementary” Authorities for the Development of Offshore Wind Power	9
[1] Federal Level	9
[2] The Role of Regional Governments	10
[3] Other Players Vital for the Development of Offshore Wind	11
[C] The Role of “Law” Within Institutional Decision Making	11
§1.03 Legal Design for Offshore Wind	14
[A] Incentives	14
[1] Main Finance Scheme	14
[2] Supplementary Finance Scheme	17
[a] Low Interest Loans and Loan Guarantees	17
[b] Tax Credits	18

Table of Contents

	[c] Favorable Grid Cost-Sharing Rules	18
	[d] Links to ETS	19
	[e] Other Funding Sources	20
	[f] International and European Trade Law Concerns	20
	[3] Incentives for Construction Harbors and Construction Vessels and Grids, or Turbine Manufacturers	21
[B]	Regulations	22
	[1] License Scheme	22
	[2] Environmental Impact Assessment	24
	[3] Strategic Environmental Assessment (SEA)	25
	[4] Planning the Legal Regime: Marine Planning	25
	[5] International and European Law	26
	[6] Public Participation Scheme	28
	[7] Grid Expansion	29
§1.04	Challenges and Solutions	30
§1.05	Conclusion	31
CHAPTER 2		
Legal Framework to Develop Offshore Wind Power in United Kingdom		
	<i>Navraj Singh Ghaleigh</i>	33
§2.01	Introduction	33
	[A] The Emission Reduction and/or Renewable Energy Duty/Target of the Countries at Stake	34
	[B] Why Move from Onshore to Offshore?	35
	[C] Policy Setting	36
§2.02	Institutional Design for Offshore Wind	38
	[A] The “Main” Authority During the Development of Offshore Wind Power	38
	[B] The “Supplementary” Authorities During the Development of Offshore Wind Power	38
	[1] Central Government Level	38
	[2] The Role of the Local Government	40
	[3] Other Players Vital for the Development of Offshore Wind	40
	[C] The Role of “Law” under the Institution Decision-Making and Related Policies	41
§2.03	Legal Design for Offshore Wind	42
	[A] Incentives	42
	[1] Main Finance Scheme	42
	[2] Supplementary Finance Scheme	44
	[a] A. Low Interest Loan and Loan Guarantee	44
	[b] Tax Incentives	44
	[c] Investment Subsidy/Grant	45
	[d] The Links to ETS, CDM, and JI	46

[B]	Regulations	46
[1]	License Scheme	46
[2]	Environmental Impact Assessment (EIA)	46
[3]	Strategic Environmental Assessment (SEA) and Siting Related Planning	47
[4]	Planning the Legal Regime: Marine Planning and/or Land Planning	47
[5]	Grid	51
[6]	Other Concerns and Legal Regime	51
§2.04	Challenges and Solutions	51
[A]	Institutional Design: Challenges and Solutions	51
[1]	Challenges	51
[2]	Solutions	52
[B]	Incentives: Challenges and Solutions	53
[1]	Challenges	53
[2]	Solutions	53
[C]	Regulations: Challenges and Solutions	54
§2.05	Conclusion	54
PART II		
	Offshore Wind Power of Developing Countries in Europe	57
CHAPTER 3		
	Legal Framework to Develop Offshore Wind Power in France	
	<i>Catherine Banet</i>	59
§3.01	Introduction: Policy Background	59
[A]	France Energy Generation Profile	59
[B]	Rationale for Moving from Onshore to Offshore: National Policy	62
[1]	Assessing the Potential	62
[2]	Multiple Motivations	62
[C]	Policy Setting: The Role of Wind and Offshore Wind Power in Policy Papers	63
[1]	Latest Policy Developments	63
[2]	Quantitative Target Setting: Multiannual Programme for Energy (PPE)	63
[3]	National Strategy for the Sea and the Coastal Area (<i>Stratégie nationale pour la mer et le littoral</i> , SNML)	65
[4]	Follow-Up Reports on Implementation Strategy	65
§3.02	Institutional Design for Offshore Wind	66
[A]	The “Main” Authority During the Development of Offshore Wind Power	66
[B]	The “Supplementary” Authorities During the Development of Offshore Wind Power	66
[1]	Central Government Level	66

Table of Contents

	[a]	Energy and Environmental Authorities	66
	[b]	Marine Authorities	67
	[2]	The Role of the Local Government	67
	[3]	Other Players Vital for the Development of Offshore Wind	67
	[a]	Industry Associations	67
	[b]	Commercial Actors	67
	[c]	Grid Operators	68
	[C]	The Role of “Law” under the Institution Decision Making and Related Policies	68
§3.03		Legal Design for Offshore Wind	68
	[A]	Incentives	68
	[1]	Main Finance Scheme	68
	[a]	Bottom-Fixed Offshore Wind	69
	[i]	Tender Procedures and Tendering Rounds	69
	[ii]	Evolution of the Competitive Tendering Procedure Over Time: From Traditional Call for Tenders to the Competitive Dialogue	70
	[iii]	Financial Support Schemes: Power Purchase Obligation or Remuneration Complement Contract	72
	[b]	Floating Offshore Wind	73
	[2]	Supplementary Finance Scheme	74
	[a]	Low Interest Loan and Loan Guarantee	74
	[b]	Tax Credit	74
	[c]	Favorable Grid Cost-Sharing Rules	74
	[d]	The Links to ETS, CDM, and JI	74
	[e]	Other Funding Source, Such as National Research Fund and Supportive Scheme	75
	[f]	International Trade Law Concerns of the Subsidy	75
	[3]	Incentive for Construction Harbor, Construction Vessel and Grid, or Turbine Manufacturers	75
	[a]	Preferential Insurance Regime	75
	[B]	Regulations	75
	[1]	License Scheme	76
	[a]	Concession to Occupy Maritime Space and Seabed Within the Maritime Public Domain or the EEZ	76
	[b]	Authorization Pursuant to Water Resources Protection (Water Resource Protection License)	77
	[c]	Operating Permit for the Electric Installation	78
	[i]	Decommissioning	78
	[2]	Environmental Impact Assessment (EIA)	79
	[3]	Strategic Environmental Assessment (SEA) and Siting Related Planning	79

[4]	Planning the Legal Regime: Marine Planning and/or Land Planning	80
[5]	International Law and/or European Law	81
[6]	Public Participation Scheme	82
[a]	Financial Participation	82
[7]	Grid	83
[8]	Other Concerns and Legal Regime	84
[a]	Military Activities	84
[b]	Habitat and Species Protection	84
[c]	Compensation Mechanism: Offshore Wind Tax	84
§3.04	Challenges and Solutions	85
[A]	Institutional Design: Challenges and Solutions	85
[B]	Incentives: Challenges and Solutions	85
[C]	Regulations: Challenges and Solutions	86
§3.05	Conclusion	86
CHAPTER 4		
Legal Framework to Develop Offshore Wind Power in Italy		
<i>Sandra Cassotta & Ulla Steen</i>		87
§4.01	Introduction	87
§4.02	Institutional Design	91
§4.03	Incentives	93
§4.04	Regulations	94
§4.05	Conclusion	101
CHAPTER 5		
Legal Framework to Develop Offshore Wind Power in Norway		
<i>Catherine Banet</i>		103
§5.01	Introduction: Policy Background	103
[A]	Political Will to Develop Offshore Wind	103
[B]	Rationale for Moving from Onshore to Offshore: National Policy	105
[1]	Policy Setting	107
[C]	The Role of Offshore Wind Power in Policy Papers	108
[1]	Policy and Programs	108
[2]	Quantitative Approach: Target-Setting for Offshore Wind	109
[3]	Qualitative Approach: Statements in Policy Papers	109
[4]	Regional Cooperation, the Way Forward?	110
§5.02	Institutional Design for Offshore Wind	111
[A]	The “Main” Authority During the Development of Offshore Wind Power	111
[B]	The “Supplementary” Authorities During the Development of Offshore Wind Power	112

Table of Contents

	[1] Central Government Level	112
	[2] The Role of the Local Government	112
	[3] Other Players Vital for the Development of Offshore Wind	112
	[a] State Organs	112
	[b] Industry Association	113
	[c] Research Centers	113
	[d] Commercial Actors	114
	[e] System Operators	115
	[f] Investors	115
§5.03	Legal Design for Offshore Wind	115
	[A] Incentives	115
	[1] Main Finance Scheme	115
	[a] Change of Support Regime	116
	[b] The Green Certificates Scheme	116
	[2] Supplementary Finance Scheme	117
	[a] Low Interest Loan and Loan Guarantee	117
	[b] Tax Credit	117
	[c] Investment Subsidy/Grant	118
	[d] Favorable Grid Cost-Sharing Rules	118
	[e] The Links to ETS, CDM and JI	118
	[f] Other Funding Source, Such as National Research Fund and Supportive Scheme	118
	[g] International Trade Law Concerns of the Subsidy	118
	[3] Incentive for Construction Harbor, Construction Vessel and Grid, or Turbine Manufacturers	119
	[B] Regulations	119
	[1] License Scheme	119
	[a] Within the Baseline: Energy Act	119
	[b] Outside the Baseline: OREP Act	121
	[c] Assessment of the Regime	122
	[2] Environmental Impact Assessment (EIA)	123
	[a] Within the Baseline	123
	[b] Outside the Baseline	123
	[3] SEA and Siting Related Planning	124
	[a] Within the Baseline	124
	[b] Outside the Baseline	124
	[4] Planning the Legal Regime: Marine Planning and/or Land Planning	128
	[a] Inside the Baseline	128
	[b] Outside the Baseline	131
	[5] International Law and/or European Law	133
	[a] International Law	133
	[b] EU/EEA Law	135
	[6] Public Participation Scheme	136

	[7] Grid	136
	[a] Rules on Laying of an Undersea Electricity Cable	136
	[b] Existing Pipelines and Cables	136
	[c] Connection of Offshore Wind Power to Interconnectors	136
	[8] Other Concerns and Legal Regime: From Conflicts in Area Use to Coexistence	136
	[a] Offshore Petroleum Activities	137
	[b] Shipping	137
	[c] Fisheries	137
	[d] Habitat and Species Protection: Biodiversity	138
	[e] Sami Community	139
	[f] Landscape	139
	[g] National Security-Related Regulations, Defense Concerns and Military Activities	139
§5.04	Challenges and Solutions	139
	[A] Institutional Design: Challenges and Solutions	139
	[1] Challenges	139
	[2] Solutions	140
	[B] Incentives: Challenges and Solutions	140
	[1] Challenges	140
	[2] Solutions	140
	[C] Regulations: Challenges and Solutions	140
	[1] Challenges	140
	[2] Solutions	141
§5.05	Conclusion	142
PART III		
	Offshore Wind Power of Developing Countries in the Pacific Asia	143
CHAPTER 6		
	Legal Framework to Develop Offshore Wind Power in United States	
	<i>Jeremy Firestone</i>	145
§6.01	Introduction	145
§6.02	Institutional Design for Offshore Wind	147
	[A] The “Main” Authority During the Development of Offshore Wind Power	147
	[B] The “Supplementary” Authorities During the Development of Offshore Wind Power	148
	[1] Central Government Level	148
	[2] The Role of the State Government	149
	[3] Other Players Vital for the Development of Offshore Wind	150

Table of Contents

	[C] The Role of “Law” under the Institution Decision Making and Related Policies	152
§6.03	Legal Design for Offshore Wind	152
	[A] Incentives	152
	[B] Regulations	154
	[C] Planning the Legal Regime: Marine Planning and/or Land Planning	157
	[D] Public Participation Scheme	158
	[E] Grid	158
	[F] Other Concerns and Legal Regime	159
§6.04	Challenges and Solutions	161
	[A] Institutional Design: Challenges and Solutions	161
	[B] Incentives: Challenges and Solutions	161
	[C] Regulations: Challenges and Solutions	162
§6.05	Conclusion	162
CHAPTER 7		
Legal Framework to Develop Offshore Wind Power in Australia		
	<i>Alex Wawryk</i>	163
§7.01	Introduction	163
§7.02	Institutional Design for Offshore Wind	166
	[A] The “Main” Authority During the Development of Offshore Wind Power	166
	[B] The “Supplementary” Authorities During the Development of Offshore Wind Power	167
	[1] Central Government Level	167
	[2] State Government Level	168
	[3] Local Government	168
§7.03	Legal Design for Offshore Wind	169
	[A] Incentives	169
	[1] National Market-Based Mechanisms to Decrease GHG Emissions and/or Increase the Uptake of Renewable Energy	169
	[a] Emissions Trading	169
	[b] Direct Action Plan: ERF and the Safeguard Mechanism	171
	[c] Renewable Energy Target	173
	[B] Grants and Finance	174
§7.04	Licensing Regime	176
	[A] Developments in State/Territory Coastal Waters	177
	[1] Planning Law, Environmental Impact Assessment, and Public Participation	177
	[2] Other Licenses/Approvals	179
	[B] Developments in Commonwealth Coastal Waters	181

	[C] Compensation	183
§7.05	Grid Issues	185
§7.06	Challenges and Solutions	186
§7.07	Conclusion	188
CHAPTER 8		
Legal Framework to Develop Offshore Wind Power in China		
	<i>Haifeng Deng</i>	191
§8.01	Introduction	191
§8.02	Institutional Design for Offshore Wind	193
	[A] The “Main” Authority During the Development of Offshore Wind Power	193
	[1] Central Government Level	194
	[2] The Role of the Local Government	194
	[3] Other Players Vital for the Development of Offshore Wind	195
	[B] The Role of “Law” under the Institution Decision Making and Related Policies	195
§8.03	Legal Design for Offshore Wind	196
	[A] Incentives	196
	[1] Main Finance Scheme	196
	[2] Supplementary Finance Scheme	197
	[3] Incentive for Construction Harbor, Construction Vessel and Grid, or Turbine Manufacturers	198
	[B] Regulations	198
	[1] License Scheme	198
	[2] Environmental Impact Assessment	199
	[3] Planning the Legal Regime	200
	[4] International Law	201
	[5] Grid	202
	[6] Other Concerns Fisheries	202
§8.04	Challenges and Solutions	203
	[A] Institutional Design	203
	[B] Incentives	203
	[C] Regulations	203
§8.05	Conclusion	204
CHAPTER 9		
Legal Framework to Develop Offshore Wind Power in Korea		
	<i>Eubong Lee</i>	205
§9.01	Introduction	205
§9.02	Institutional Design for Offshore Wind	208
	[A] The Authorities for Development of Offshore Wind Power	208

Table of Contents

	[B] The Role of “Law” under the Institution Decision Making and Related Policies	210
§9.03	Legal Design for Offshore Wind	212
	[A] Incentives	212
	[1] Main Finance Scheme	212
	[2] Supplementary Finance Scheme	214
	[a] Low Interest Loan and Loan Guarantee	214
	[b] Tax Credit	214
	[c] Investment Subsidy/Grant	214
	[d] Community Support	215
	[B] Regulations	219
	[1] License Scheme	219
	[2] Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA)	219
	[3] Site Related Planning	220
	[4] Marine Planning and Land Planning	220
	[5] Habitat and Species Protection	221
	[6] Fisheries	221
	[7] Public Participation Scheme	221
	[8] Grid	222
§9.04	Challenges and Solutions	222
	[A] Institutional Design: Challenges and Solutions	222
	[B] Incentives: Challenges and Solutions	222
	[C] Regulations: Challenges and Solutions	223
CHAPTER 10		
Legal Framework to Develop Offshore Wind Power in Taiwan		
	<i>Anton Ming-Zhi Gao</i>	225
§10.01	Introduction	225
§10.02	Institutional Design for Offshore Wind Power	227
	[A] The “Main” Authority During the Development of Offshore Wind Power	227
	[B] The “Supplementary” Authorities During the Development of Offshore Wind Power	228
	[1] Central Government Level	228
	[2] The Role of the Local Government	229
	[3] Other Players Vital for the Development of Offshore Wind	230
	[C] The Role of “Law” in Institutional Decision Making and Related Policies	230
§10.03	Legal Design for Offshore Wind	232
	[A] Incentives	232
	[1] Main Finance Scheme	232
	[2] Supplementary Finance Scheme	232

	[a] Low-Interest Loan and Loan Guarantee	232
	[b] Tax Credit	233
	[c] Investment Subsidy/Grant	233
	[d] Favorable Grid Cost-Sharing Rules	233
	[e] The Links to ETS, CDM, and JI	234
	[f] Other Funding Sources, Such as the National Research Fund and Supportive Scheme	235
	[g] International Trade Law Concerns Regarding the Subsidy	235
	[3] Incentive for Construction of Harbor, Vessel, and Grid, or for Turbine Manufacturers	236
[B]	Regulations	237
	[1] License Scheme	237
	[2] Environmental Impact Assessment	237
	[3] SEA and Siting-Related Planning	238
	[4] Planning the Legal Regime: Marine Planning and/or Land Planning	242
	[5] International Law	244
	[6] Public Participation Scheme	244
	[7] Grid	245
	[8] Other Concerns and the Legal Regime	245
§10.04	Challenges and Solutions	246
	[A] Institutional Design: Challenges and Solutions	246
	[1] Challenges	246
	[2] Solutions	246
	[B] Incentives: Challenges and Solutions	247
	[1] Challenges	247
	[2] Solutions	248
	[C] Regulations: Challenges and Solutions	249
	[1] Challenges	249
	[2] Solutions	249
§10.05	Conclusion	250
	Index	253

Preface

After the golden age of onshore renewable energy over the past few decades, several factors have led to the recent movement toward offshore renewable energy. These factors include existing use of strong-wind sites, lack of space and protests against further development. Of all the offshore renewables, offshore wind has shown the strongest growth over the past few years. For this reason, it could contribute most effectively to our energy future.

This book can be seen as a continuation and update of the previous book entitled *Legal Systems and Wind Energy: A Comparative Perspective* (edited by: Helle Tegner Anker, Birgitte Egelund Olsen, Anita Rønne, by Kluwer, 2008). This book aims to apply the previous book's analytical structure in the Pacific Asia Region (the US, Australia, China, Korea and Taiwan) and in other parts of Europe including Germany, France, Italy, Norway, and the UK. Additionally, this book will focus solely on offshore wind power. It will focus on the scheme for wind turbines, but also on the key infrastructure of grid, construction harbor, and vessels. Finally, for the regulatory section, this book will address both the environmental, health and safety (EHS) concerns related to offshore wind, and its incentives.

The book aims to provide a holistic approach to key lessons that we can learn from Germany and the UK, the leaders in offshore wind power development (Part I. Offshore Wind Power of Highly Developed Countries in Europe). It strives to determine if we could apply a similar legal structure in the Pacific Asia Region (Part III. Offshore Wind Power of Developing Countries in the Pacific Asia) and in other European countries (Part II. Offshore Wind Power of Developing Countries in Europe).

Usually, the public would have the perception that policy initiative and subsidy mainly drive the development of offshore wind power. Yet, from the lessons of Offshore Wind Power of Highly Developed Countries, the development of a strong and sound legal framework could also have the same importance. In this book, such a framework would embrace three key elements.

First, before moving into the details of legal design for offshore wind power development, a well-functional Institutional Design for Offshore Wind Power is fundamental to pave the way for furthering good incentives and regulations. Such competent authority plays the role not only of drafting good policy but also of avoiding

red tape during the development stage of offshore wind power. From the surveyed countries, the one-stop-shop/integrated procedures models in Germany and the UK are highly recommended. In the rest of the countries, fragmented authorities and procedures may post tremendous procedural burden to offshore wind power, whose nature is more complex than the rest of renewable electricity installations.

Second, the main drivers of all renewables, including offshore wind, are the incentives and subsidy. So far, most attention has been paid to the key incentive scheme, such as feed-in tariff or tendering. However, a good mixture of main incentives – feed-in tariff (FIT), renewable portfolio standards (RPS), renewable obligation (RO), and tendering – and supplementary schemes – investment subsidy, low interest loan, taxation credit, favorable grid cost-sharing rules – is indispensable. Particularly, offshore wind power faces higher barriers and risk of loan and finance issues than onshore wind power. A balanced approach for structuring the incentives scheme to reflect the needs of offshore wind power industries is necessary. Of course, it is also related to the needs of national policy direction. Does the country at stake focus on the real deployment of offshore wind power to meet its emission reduction and renewable energy goals? On the other hand, do the goals also involve the development of local offshore wind power industries to create green jobs?

For most of renewable energy, money talks and incentives could play a key role. Yet, for offshore wind power, regulatory barriers pose a lot of threat to the development of offshore wind power projects. A license scheme stands in the center and is surrounded by the environmental health and safety (EHS) concerns of the projects. In this regard, how to develop an appropriate license scheme, and related EHS regulations, such as Environmental Impact Assessment (EIA), and Strategic Environmental Assessment (SEA) and Siting Related Planning, could contribute to the development of offshore wind power as well.

With a view to deliberate the legal issues above in a careful manner, on August 22–23, 2016, the Institute of Law for Science and Technology and the Bioethics and Law Center of the National Tsing Hua University, the Office of Energy Policy for Bridging and Communication, the National Energy Research Programme, and the College of Intellectual Property Studies of National Taiwan University of Science and Technology (NTUST) organized an International Conference on Comprehensive Legal Framework for the Development of Offshore Wind Power Around the World, with the funding support from the Ministry of Science and Technology, the Research Center for Humanities and Social Sciences, National Tsing Hua University, and the Office of Research & Development, National Tsing Hua University. Special thanks go to the Research Center for Humanities and Social Sciences, National Tsing Hua University, Taiwan, whose funding has made the combination of this international conference and book project possible.

Anton Ming-Zhi Gao

*Associate Professor, Institute of Law for Science and Technology,
National Tsing Hua University*

Fan Chien-Te

*Director and Professor, Institute of Law for Science and Technology,
National Tsing Hua University*

CHAPTER 4

Legal Framework to Develop Offshore Wind Power in Italy

*Sandra Cassotta & Ulla Steen**

§4.01 INTRODUCTION

The full development of marine renewable energies, especially the offshore wind power sector, represents a huge opportunity for Italy which is surrounded by more than 8,000 km of coastal areas. The evolution in terms of growth is dependent of the National Energy Strategy (“Strategia Energetica Nazionale” abbreviated as “SEN”) with the goal of reaching the European Union (EU) objectives.

This chapter focuses on the regulatory framework applying to the offshore wind energy power sector in Italy and its interactions with the EU sources of law and policy objectives. According to the 20–20–20 strategy and the latest new EU targets, Italy should increase its share of energy production to 20% by 2020. Good results and investments have been achieved on land and in the onshore wind power sector. The Renewable Energy Progress Report (COM (2013) 175 shows particularly that in 2010 Italy already achieved its 2011/2012 interim targets laid down in Directive 2009/28/EC, reaching 10.4 share of renewable energy in the final energy consumption. Nevertheless, what is the situation with regards to offshore wind power sector in Italy? Why is there not a single offshore wind energy farm operating yet in Italy even though some of these projects passed the environmental impact assessment (EIA)?

The aim of this chapter is not only to provide an update of the current Italian regulatory framework but also of the past evolution and future trends of the sector under examination in order to provide a response as to why the sector is not operative.

* The authors would like to thank Fabrizio Penna, Senior Expert in the Cabinet Office of the Italian Ministry of the Environment and Protection of Land and Sea, Rome (Italy) and Associate Professor, Stefano Fanetti, University of Insubria, Como (Italy) for kindly provide some advice material and data.

The research question is to identify the legal and political challenges and barriers of the offshore wind power sector in Italy by examining the trends for increasing the market exposures of wind generators, and support schemes, such as feed-in premiums and competitive bidding procedures in order to address the most important concerns for investment which needs a certain stability of regulatory framework. The main problem in this sector is the existence of a cumbersome permit and licensing procedure and a very confused and heavy “authorization process” for operators willing to open an offshore wind energy farm. A clear mechanism of support is lacking, too many subjects are involved in the granting of permits, and it is not clear – “who licences what”. This situation is aggravated by a chaotic and fragmented regulatory framework, and an uncertain distribution of competences between state and regions. This chapter also provides an analysis of the current national resistance against this sector in Italy by critically examining the normative framework and a seminal case law representative of fragmentation and legal uncertainty. This chapter concludes by identifying possible solutions at policy and regulatory levels and makes recommendations on how to overcome the difficulties in gaining permits in this sector in order to establish and run, thus allowing Italy to take profit of this great potential which up to now has been completely unexploited.

Even if the renewable energy sector in Italy continues to grow, there are currently no offshore wind energy farms in place yet.¹ The renewable energy sector has grown especially after the impulse of the EU strategy 20–20–20 of the EU and the huge economic incentives from the Italian government. The main problem is therefore not on the level of incentives, which have been quite high, but the absence of a national energy policy for a long time as well as a chaotic distribution of competence between state and regions in the renewable energy sectors. The evolution in terms of growth is now depending on the very recent SEN with the objective to reach the EU objectives but the past neglect or delay in designing this strategy, and this is a heavy burden and cause of barriers in the current development of this sector. The policy and legal framework of the offshore wind power sector is faced with the need to find and balance between the running of new wind farm and the needs of the society. The rapid development of this sector, in the future, will bring key benefits for the society especially in terms of reduction of Green Gas Emissions (GHG), and will favor the labor market, technologic development, and exports.

Nevertheless, the legal and policy framework applying to the sector must occur in harmony with important environmental and socioeconomic needs in order to guarantee sustainable development and the acceptance of public opinion to avoid what is called the “Not In My Backyard” (NIMBY) syndrome occurring when local governments and political parties oppose and protest against renewable energy installations.

1. Nevertheless, according to a latest update, at the time of the present writing, it is expected that the first offshore farm will be located in front of Taranto harbor in the Apulia region (Southern of Italy) in a water depths of 4–18 meters. Delivery and installation of turbines is currently planned for summer 2018, while their commissioning is expected to take place in autumn 2018. See more at http://www.offshorewind.biz/2017/06/14/senvion-turbines-for-first-offshore-wind-farm-in-the-mediterranean/?utm_source=emark&utm_medium=email&utm_campaign=daily-update-offshore-wind-2017-06-15&uid=14867.

In order to permit the Italian offshore wind energy power sector to achieve its role and finally to make use of its huge potential, there are some regulatory obstacles to overcome. A better and simpler regulatory licensing process and a more efficient access to electric grids are fundamental. There is a need to eliminate administrative barriers compared to the traditional renewable energy sources (RES), and this is the key problem in the Italian offshore wind power energy sector. In addition, there are some concerns as to the possible impact of offshore farms. In that respect, the offshore wind power sector must be respectful of the EU environmental legislation, which offers a very detailed legal and policy framework common to all Member States of the EU, in order to find solutions when problems of conflicts between national practices and the protection of the environment may arise. The mechanism of the EU sources of law and policy guarantees that the development of offshore wind power energy occurs in a sustainable way and reduces to a minimum its impact on the environment. In order to achieve sustainable development objectives in this sector and limit the potential impact of offshore wind farms on nature, it is fundamental to understand how and which type of legal duties an operator is supposed to respect in the phase of planning and management of offshore wind energy installation. This will be analyzed in the next paragraphs.

The geographical distribution of the current proposed offshore wind energy farms is mostly concentrated in the southern of Italy and also in the two islands: Sicily and Sardinia. The regions of interests are Puglia in the south but also Tuscany and Molise, situated in the central area of the “boot.” Most of the potential is on “deep waters” rather than “transitional waters” or “shallow waters.”² With regards to offshore wind energy farms, fifteen projects were presented to the government for approval in 2006–2013, but only two appear to have passed the stage of approval: one in the Gulf of Taranto and another opposite to the Gela coast.³ Actually, there is no single offshore wind farm operating yet in Italy at the present time of writing even though some of the projects have passed the EIA procedure.⁴ The project in the Gulf of Taranto provides a capacity of 30 MW with ten turbines. The project opposite to the Gela coast provides for a plant of 137 MW, with thirty-eight turbines and cables.

Hence, one wonders what is the barrier in Italy for the offshore wind farm to be rendered operative? In theory, in Italy we find all the conditions to make this sector operative as the country presents huge potential. The Italian Wind Energy Association, ANEV (Associazione Nazionale Energia del Vento) estimates the offshore wind energy of 2,500 MW is able to satisfy the needs of 1.9 millions of families. In addition, in line with the EU legislations, the SEN estimated that offshore wind farms would reach the

2. Marchisio, A., “APER” *Italian Renewable Energy Association* – Seanergy 2020.

3. Giugno, S., “*Eolico offshore, perché l’Italia non ha nemmeno un impianto?*”, La Stampa, June 24, 2015, at <http://www.lastampa.it> 2015/06/24/ scienza/ambiente/focus/eolico-offshore.

4. Giugno, S., “*Eolico offshore, perché l’Italia non ha nemmeno un impianto?*”, La Stampa, June 24, 2015, at <http://www.lastampa.it> 2015/06/24/ scienza/ambiente/focus/eolico-offshore; Marchisio, A., “APER” *Italian Renewable Energy Association* – Seanergy 2020; Legambiente “*Trivelle SI, Eolico offshore NO?*” *Da Taranto a Termoli, da Gela a Manfredonia tutte le barriere all’eolico in mare e il via libera alle trivelle*,” July 30, 2014.

objective of 100 MW, which were supposed to be installed in 2013 and which should produce a 680 MW in 2020.

The Renewable Energy Directive 2009/28/EC,⁵ hereafter, the “RES Directive” established a common framework for the promotion of energy by setting mandatory national targets in order to achieve at least a 20% renewable energy share in the final energy output by 2020. The RES Directive required each Member State to set out the sectorial targets by their National Renewable Energy Action Plans (NREAPs) by June 2010.

Also, each of these individual plans defined the “technology mix scenario,” the trajectory to be followed and reform measures to overcome barriers and ensure the developing of renewable energy. Offshore wind energy has a very important role in this context of “mix scenarios.”

Italy already achieved its 2011/2012 targets, laid down in the RES Directive, as mentioned before in this chapter. But these good results have depended largely on the high level of incentives that have benefitted renewable energy resources, as it will be shown in the next sections. However, the trend of recent years is toward the reduction of incentives which could have serious impact on Italy’s ability to reach its 2020 objectives. The functioning of the mechanism of incentives is explained and given by the “Gestore dei Servizi Energetici” (the “GSE”) which is a very important actor in Italy. The GSE (in English, the “Energy Service Manager”), abbreviated “ESM,” is practically a state-owned company which promotes and supports RES.⁶

The aim of the ESM is to foster sustainable development by providing support for renewable electricity (RES-E)⁷ generation and by taking actions to build awareness of environmentally efficient energy uses.⁸

With regards to the schemes for the promotion of offshore wind energy in Italy, the Italian law implemented by the RES Directive is the D.Lgs 28/2011⁹ which by transposing the RES Directive has introduced significant changes to the incentive schemes of energy from renewable sources.

Nevertheless, the sector started to decline, especially in 2014 partly as a consequence of the decreased level of economic incentives, which had been very high in the

5. Directive 2009/28/EC of the European Parliament and of the Council of April 23, 2009 on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (RES Directive), Official Journal (OJ) June 5, 2009, L 140/16.

6. RES or FER are Renewable Energy Sources (Fonti da Energia Rinnovabile) which means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases).

7. RES-E means “RES-Electricity,” and it is the electricity produced from renewable sources which means electricity produced by plants using only renewable energy sources, as well as the proportion of electricity produced from renewable energy sources in hybrid plants also using conventional energy sources and including renewable electricity used for filling storage systems, and excluding electricity produced as a result of storage system.

8. See more about the “Gestore dei Servizi Energetici” (GSE), translated in this chapter by “the Energy Service Manager” (ESM) at the official website: www.gse.it.

9. Decreto Legislativo March 03, 2011, N. 28 Supplemento Ordinario N. 81/L alla Gazzetta Ufficiale N. 81/L “Attuazione della Direttiva 2009/28/CE sulla promozione dell’uso dell’energia da fonti rinnovabili, recante modifica e successive abrogazione delle direttive 2001/77/CE e 2003/30/CE.”

past. This could have serious impact not only on this sector but also on Italy's ability to reach its 2020 objectives. For example, the decrease in the level of incentives has led to a breakdown of Italy's installations for the onshore wind power sector in 2014 (107 MW installed against a media of 800 in the past years).

§4.02 INSTITUTIONAL DESIGN

Currently, in Italy, onshore wind energy farms are thus operative but not the offshore ones. For all the offshore wind energy projects presented to the government for approval, there have always been problems in the licensing and permitting procedures, especially at the level of the authorization process even though several projects had their EIA approved. Several actors are involved in the authorization process, which sees administrative proceeding complicating the acceptance from different ministries, regions, municipalities, and local entities which often enter into conflicts.

In Italy, the absence of a national energy plan for a long time, even though a plan was finally adopted but very late as mentioned previously, is also due to the remarkable diversity and heterogeneity in geographical, economic and environmental terms.¹⁰ These problems have contributed to a disjointed and fragmented regulatory framework with respect to RES in general, and in the offshore wind energy power sector, in particular.¹¹ Specifically, with regards to the offshore wind energy sector, the lack of transparency in the permitting and licensing procedure, the lack of mechanisms of support and the interference of many subjects in the involvement on permitting and licensing, have created barriers in the development of the sector, especially for investors.¹² In the past, like in the present, it is not clear "who licences what."

Renewable energy projects are "share competences" between the regional competence and the national competence.¹³ Nevertheless, there are some differences and exceptions in case of who shall deliver the "Authorization Procedure" to open a power plant. In case of onshore and other renewable energy, the competency is in the hands of the regions but not in the case of offshore wind power plants where the competency has been completely centralized meaning that in case of offshore, the competent actor is the State and not the Regions.

Hence, in Italy, authorizations in the case of the offshore wind energy power sector (differently to on shore) are issued by: (1) the public maritime domain (navigation code) granted in concession by the Ministry of Transport through Port

10. Fanetti, S. & Pozzo, B., "Subnational Resistance against Renewable Energy: The Case of Italy", in "Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approach", Peeters M., Shoemerus, T., Edward Elgar, 2014, pp. 165-183.

11. Fraterrigo, C., "Profili critici dello strumento dei piani energetici regionali: in particolare, l'esperienza della Regione Sicilia." Norma – Quotidiano d'informazione giuridica, 13 Dicembre 2011.

12. Giugno, S., "Eolico Offshore, perché l'Italia non ha nemmeno un impianto?", La Stampa, June 24, 2015, at <http://www.lastampa.it/2015/06/24/scienza/ambiente/focus/eolico-offshore>.

13. Under the current provisions of the third paragraph of the Art. 117 of the Italian Constitution, "national production, transport and distribution of energy" is a matter attributed to concurrent legislative competence: the State sets out the fundamental principles, while the Regions are responsible for the preparation of detailed regulations."

Authorities), (2) the “Autorizzazione Unica” (Single Authorization) is granted by the Ministry of Transport (after consultation with the Ministry of Economic Development and the Ministry of the Environment and Protection of the Land and Sea, and (3) must go through an EIA which is granted by the Ministry of Environment, after hearing the Ministry of Cultural Heritage.¹⁴

Due to the absence of a unitary national legal framework in the RES in Italy, Regions often have worked disjointed from the other Regions and often in a random way by sometimes adopting more stringent and severe legal provisions or sometimes the opposite. Very often, bureaucratic burdens were added instead of simplifying the authorization procedure.

This had repercussions also in the transposition of the RES Directive and it is visible in the manner in which D.Lgs 28/2011 has been poorly applied and can be considered as an example of low level of quality at normative level.

The Case of the Court of Justice of the European Union (CJEU) C-2/10 Azienda Agro-Zootecnica Franchini Srl¹⁵ can be considered also as a very good case explaining the conflicts between the State and the Region where the main battleground is precisely represented by the authorization process for renewable energy projects.¹⁶ This case has reached the CJEU and concerned the prohibition of wind turbines in the light of nature protection, and it is based on a preliminary question from the Italian Court regarding the total prohibition of wind turbines in nature conservation areas as the Puglia Region, a region that wanted to take action against the installation of wind energy. The case represents an example of a regional government willing to impose a barrier to further renewable energy establishment.

The CJEU explicitly considers the proportionality principle and states that Article 13 of the RES Directive introduces this principle with regards to administrative procedures for the authorization of plants producing renewable energy. In this case, the national Italian Court had to answer the difficult question whether this ban for the sake of nature protection is indeed proportionate and necessary. This case explains therefore where the objective of environmental protection gets weighted against the objective of renewable energy production when an offshore wind energy project will apply for authorization in a protected nature area.

The entrenchment between substantive aspects, that can be tested in a court procedure, and the need for administrative authorities to provide adequate justification in case of substantive burden is stronger than ever.

The CJEU determined that Article 194(1) of the TFEU includes the requirement for energy policy to have due regard for the need to preserve and improve environment¹⁷ and that measures prohibiting only the location of a wind turbine not intended

14. Marchisio, A., “Offshore Wind Power in Italy” Seanergy 2020 Project APER (Italian Renewable Energy Association).

15. Court of Justice, Case C-2/10, *Azienda Agro-Zootecnica Franchini Srl, Eolica di Altamura Srl v. Region Puglia*, July 21, 2011.

16. Fanetti, S. & Pozzo, B., “Subnational Resistance against Renewable Energy: The Case of Italy”, in “Renewable Energy Law in the –EU Legal Perspectives on Bottom-up Approach”, Peeters M., Shoemerus, T., Edward Elgar, 2014, p. 167.

17. Case C-2/10, July 21, 2011, para. 50.

for a self-consumption on sites forming part of the Natura 2000 framework with the possibility of an exemption for wind turbines intended for self-consumption with a capacity not exceeding 20 KW, in view of its limited scope is not liable to jeopardize the EU objectives of developing new and renewable forms of energy.¹⁸ The CJEU held also that the Habitat & Birds Directives do not preclude more stringent national protective measures which impose an absolute prohibition on the construction of wind turbines not intended for self-consumption within areas of Nature 2000.¹⁹

§4.03 INCENTIVES

The fixation of tariffs and other implementing measures have to be decided in Italy, by a Ministerial Decree, and after 2013 the fare to be received during twenty-five years is determined by a tendering scheme with a based price for offshore projects of EUR 165/MWh.²⁰

In order to be admitted to a tender process, bidders have to offer a reduction over the base price between 2% and 30%. Until the present time, it is reminded that no commercial offshore wind farm exists in Italy yet.

The incentive schemes currently provided by the Italian legislator for offshore wind energy power are based on: (1) *feed-in tariff*; and (2) *tendering schemes*. According to the *feed-in tariff*, plants with an installed capacity not exceeding 200 KW started after December 31, 2000, as a result of new construction, renovation or improvement, have access to a comprehensive fee that allows them to receive an incentive of 0.30 per KWh for a period of fifteen years.

With regards to the tendering schemes, Italy planned 680 MW of offshore wind energy for 2020 (129 MW by 2014). However, due to the fact that no offshore capacity has already been deployed, no new capacity has been allocated by tenders yet.²¹

In order to understand the evolution of the regulatory framework on the authorization process for wind energy power plants installations, it is important to examine, the regulatory trend from 2000 till now. A clear overview will help both to learn from the past mistakes and to improve the future legal conditions on permitting and licensing.

Between 2000 and 2004, the objective of the rules was just to “start” the market. In order to do so, the Italian legislator has introduced a system of “Green Certificates” (“GC”), in Italian “Certificati Verdi” abbreviated with “CV” with the D.Lgs No. 79/1999. The GC are green certificates which are a tradable commodity providing that certain electricity is generated using RES.

18. Case C-2/10, July 21, 2011, para. 57.

19. Case C-2/10, July 21, 2011, para. 58.

20. Gonzalez J.S., et al., “A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development”, Renewable and Sustainable Energy Review 56 (2016) 5, p. 593.

21. Gonzalez J.S., et al., “A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development”, Renewable and Sustainable Energy Review 56 (2016) 5, p. 591.

The GC ensured the stability and transparency and a strong administrative simplification with the procedure of “Single Authorization” through the D.Lgs No. 387/03 as previously mentioned²² which involve all the public institutions in a single process authorization.

Between 2005 and 2008 a set of measures were established which went in the direction of development: (1) the incentive period was extended by eight years (initially provided by D.Lgs 79/1999) to almost a double, fifteen years (with the Law 244/07), and (2) the introduction of compulsory withdrawal of the GC expired by the ESM (L. 244/07 and implementing the Ministerial Decree 12/18/08).

From mid-2009 to the present time, there is high uncertainty of the system of rules: the attitude of the legislature has changed, and the priority no longer seems to be the development of the market as in the period between 2000 and 2004 but rather to achieve expenditure restraint.

In 2013, the D.Lgs 28/11 has provided the end of the “GC system” and a period of transition to an auction system better defined as “tender system” for large plants and administered price for others. Now, the “GC system” has been substituted by the “tender scheme” in 2013.

§4.04 REGULATIONS

The legal framework is confused, and it is not possible for offshore wind power installations to be subject to the same Guidelines (called “Guide Linea”) that apply for onshore or other renewable energy installations. This is in total contrast with the practice of operators that applies for permits in other EU countries, such as Denmark, Germany, Spain or France, where the operators operate under much clearer legal frameworks. There is legal uncertainty as to how to evaluate projects, how to identify the areas to be protected, and how to inform citizens because on the sea it is not possible to apply the same guidelines applicable onshore. In Italy, the absence of a clear regulatory framework leaves open the possibility for public entities to block an offshore wind energy project, even if located several kilometers far from the coast or opposite to another installation or for landscape reasons and without any analysis of the projects. During Renzi’s term of office, the choices in terms of changes in the regulatory and policy framework especially to simplify the authorization process have concerned fossil fuel installations. With the Legislative Decree (D.Lgs) “Sblocca Italia,”²³ improvements have only touched the offshore oil drilling for oil and gas extraction. This was

22. See footnote 16.

23. In 2014 three Italian laws (“decreti”) were signed by the ministers regulating the system of incentives of renewable energies: (1) decree MisE-MATT concerning voluntary incentives (so-called *spalma-incentivi volontario*, Art. 1, paras 3–6 of the DL145/2013) for the power sector from sources other than photovoltaic; (2) decree MisE concerning rules on mandatory incentives for photovoltaic installations with power higher than 200 KiloWatt (KW) for a duration of twenty years (so-called *spalma incentivi obbligatorio* pursuant Art. 26, para. 3 of the DL 91/2014 for large photovoltaic installations); and (3) decree MisE on the methods of allocations for the incentives on the photovoltaic sector by the GSE, which reimburses to renewable energy producers, each year, with 90% calculated on the basis of the effective production of the

well explained in a letter of complaint sent on February 2014 by a group of Italian operators which had had their projects literally blocked.²⁴ The letter was sent to the President of the Council, Renzi himself but never received a reply.

In case of regional competency, the Decree 387/2003²⁵ contains important principles in order to rationalize and simplify the authorization procedures of renewable energy plants. First, Article 12 of Decree 387/2003 states that works to build plants producing electricity fuelled by RES as well as associated structures are considered as “public utilities,” thus they cannot be “deferred” and must be considered as “urgent.”

Second, a special administrative permit called “Single Authorization” has been introduced. The permit has to be considered by the Regions (or by “delegated provinces”) through a single process which implies the involvement of all concerned administrative authorities.²⁶

The procedural scheme chosen by the legislator is the “Conferenza dei Servizi” (in English “Service Conference” abbreviated “S.C.”), which allows simultaneous representation and analysis of all various public interests and actors involved in the authorization process. In addition, Article 12 of the Decree 387/2003 also established the time frame for procedures. Article 12 also deals with compensatory issues, holding that the single authorization cannot be subordinated to or provide for such a measure in favor of Regions or Provinces.

Of particular interest of this Article 12 is number 10 that defers the punctual definition of the authorization procedure for renewable plants to further “Guidelines.” On the ground of these Guidelines, Regions could intervene in order to identify areas and sites that were considered not suitable for installation of specific plants. These Guidelines are not applicable to the offshore wind energy power sector.

After 2007, we assist in Italy in the offshore wind sector for the establishment of a process of recentralization of authorization’s procedure which was not applied for the onshore.

Thus, it is very important to note that during the last years, some exceptions to regional competence in the authorization process were provided in the case of offshore wind energy power sector.

previous year. This system should be in force until December 31 of the current year except if costs exceed EUR 5.8 billion on the costs of citizens’ electricity bills. With these new laws, the Italian renewable energy power sector market appears deadlocked and will remain as such unless a new dress is adopted the day after the December 31, 2016 (which is the date of expiration of the decree). Therefore, in the Italian case, the future will depend of which kind of laws regulating incentives for renewable energy installations will be decided and whether an improvement of the system of division of competences between states and regions with the need to recentralize the competences to the State is adopted, and whether the costs of bureaucracy render the new laws inoperable. The need to overcome this deadlocked situation in the field of legislative competence seems to be supported by the Renzi Cabinet.

24. Legambiente “‘Trivelle SI, Eolico offshore NO?’ Da Taranto a Termoli, da Gela a Manfredonia tutte le barriere all’eolico in mare e il via libera alle trivelle”, July 30, 2014. This report contains a reproduction of the letter on p. 3.
25. Decreto Legislativo n. 387 del 29.12.2003. G.U. n. 25 of the January 31, 2004, Suppl. Ordinario n. 17.
26. Fanetti, S. & Pozzo, B., “Subnational Resistance against Renewable Energy: The Case of Italy”, in “Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approach”, Peeters M., Shoemerus, T., Edward Elgar, 2014, pp. 165–183.

First, Article 2, paragraph 158, letter C of the Law 244 of 2007²⁷ established that the authorization for the offshore installations be issued by the Ministry of Transport, the Ministry of Economic Development and the Ministry of Environment and Protection of Land and Sea. Second, an additional change in the law, which was introduced by Article 13 of the Decree 46/2014, has assigned to the Ministry of Economic Development the competence of authorization of renewable plants with total installed heat capacity equal to or greater to than 300 MW. These amendments may be viewed as part of the recentralization process of renewable energy governance that the Italian government is undergoing.²⁸

Both in the case of regional competence and national competence in accordance with the Legislative Decree 152/2006, an “EIA” applies. This Legislative Decree approves the Code on the Environment which sets out the legislative framework applicable to all matters concerning environmental protection. The Code is composed of six parts. One of these parts concerns and defines and regulates the procedure of EIA (in Italian “Valutazione di Impatto Ambientale” abbreviated “VIA”).

This means that wind power plants are linked to EIA procedures and “other procedures.” For wind power plants exceeding 60 KW of power, wind power plants regardless of their sides are subject to Screening Procedure. If these plants exceed 60 KW and are partially within the system of Protected Natural Areas, they are subject to an EIA. The head of the EIA must ensure that the procedure for granting the Single Authorization Procedure is coordinated under the procedure of impact assessment.

For offshore wind power plants which are less than 60 KW, after the new Decree DL 91/2014 converted in Law 116/2014 amending the aforementioned D.Lgs 152/2006, it is also mandatory for small offshore power plants to be subjected to EIA.²⁹ These are also “other procedures” as mentioned in the previous section, that are requested for the installation of offshore energy power plants. These procedures other than the “Single Authorization” are, for example: Incidence Assessment (Valutazione di Incidenza), Declaration of Starting Activity (Dichiarazione di Inizio di Attività), “Certificate of no Impediment” (Nulla Osta for Landscape and Archeological and Flight Constrains) and an Integrate Environmental Authorization (Autorizzazione Integrata Ambientale).³⁰

Tax regulations mechanism exists to reduce real tax amount exists. They are to reduce real tax amount to less than 0.4%. The deduction is valid for a maximum period

27. Legge n. 244/07, Dicembre 2007.

28. Fanetti, S. & Pozzo, B., “*Subnational Resistance against Renewable Energy: The Case of Italy*”, in “Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approach”, Peeters M., Shoemerus, T., Edward Elgar, 2014, p. 167, footnote 10.

29. Sezioni Unite Penali (Penal Sections) of the Corte di Cassazione in the recent judgment of April 13, 2016 n. 15453 that made the state of the art in the regulatory evolution in the field of EIA after the procedure of infraction (messa in mora) against Italy for not transposing correctly the Directive 2009/31/EC on Environmental Impact Assessment. For that purpose, the Italian legislator has enacted the Law 91/2014 converted by the Law 116/2014 that modifies the D.Lgs 152/2006 which provides that irrespectively from the thresholds established in the Allegato IV of the Codice dell’Ambiente (Environmental Code) all the installations must be submitted to an EIA.

30. Calabrese, G., “*L’Industria dell’Energia Eolica in Italia – Elementi Strutturali e Dinamiche Competitive*”, 2012, Cacucci Editore, p. 158, footnote 65.

of five years from the date of installation of the plant.³¹ This tax is determined at city council level. Also a tax regulation mechanism exists (reduction in value added tax). The reduced value added tax rate is 10% (instead of 20%).³²

Grid connections have been set up and defined as “shallow cost approach.”³³

The shallow coast approach means that the plant developer bears the costs of equipment necessary to connect the generator to the nearest point on the already existing grid network. On the other hand, the grid owner will bear the cost of any reinforcement that would be necessary to integrate the new generator. There are some barriers in that sense as grid connection requires a long time and the grid is underdeveloped (as it will be explained in the next section).

It is worth noticing here that the reason why the grid connection issue is taken into consideration in this analysis is because the connection of offshore wind farms to the grid is actually very important. One of the most crucial preconditions for offshore wind power deployment is the existence of an adequate regulatory and economic framework of the connection of offshore wind plants to the onshore transmission grid. In the best case, planning and construction of one or several offshore wind plants go hand in hand with planning of the relevant cable connecting the offshore wind plant to shore.³⁴ In the worst case, large offshore wind plants are completed but are unable to commence operations whatsoever because of delayed grid connections. This causes large economic losses and represents barriers for investors.

On November 23, 2015 the Italian Regulatory Authority for Electricity Gas and Water (AEEGSI) adopted a resolution³⁵ that provides general conditions for the connection to the renewable energy plants of the national grid. The AEEGSI Resolution rules for the first time the connection procedures related to wind offshore plants built on Italian national waters. The resolutions states that “Terna” (translated in English as “the National Grid Operator”), subject to the prior consultation and approval by the

31. Article 1, C.6, I.a. L 244/07.

32. See at, <http://www.res-legal.eu/search-by-country/italy/>.

33. Grid issues are related to issues regarding grid connection, which is to say, the procedure and cost allocations and operation (priority use of the grid and balancing). The general procedure for grid connection in most European countries is such that after performing the basic technical projects of the wind farm, the plant developer sends the application to the operator. There are different approaches in the EU Member States for sharing costs of grid connection between producer and grid operators: (1) shallow cost approach (as described above in the text and which apply to the Italian case), (2) super shallow approach which means that the plant developer only have to bear the costs of the inner electrical infrastructure including plant substation, and (3) Expansion of the grid to the connection point and reinforcement which is borne by the grid operator, (4) Deep coast approach which means that the plant developers have to bear all connection costs, as well as any further reinforcement expenses that can arise as a consequence of integrating the generator in the electrical system, (5) Mixed shallow approach which is a model defined as “hybrid” of the deep coast and super-shallow approach. See more in Gonzalez J.S., et al., “A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development”, *Renewable and Sustainable Energy Review* 56 (2016).

34. Pira, R., Report “EU and Regional Practices for Offshore Wind: Creating Synergies”, Foundation of Offshore Wind Energy, (November 2014) p. 21.

35. Resolution 558/2015 amending and updating AEEG Resolution 99/08.

AEEGSI, will specify within the Grid Code (Codice di Rete) the possible solutions for the connection of the offshore wind plants.³⁶

In particular, the regulatory delays are due to bureaucratic issues and instability of incentives schemes, and these two impacts not only on time but also on costs. In addition, the costs of connecting the grid are very high such as for the construction of electrical substations and sometimes there are royalties to the municipalities involved in the initiative phase, and it should not be forgotten that wind farms in Italy are also subject to property taxation (around EUR 5,000/MW).³⁷

Moreover, the grid is underdeveloped in Italy because in order to ensure the safety of the electrical system, an entity which is “Terna” can impart some limitations of production in a planned manner or in real time referred as “dispatching orders.” With that respect, some Italian producers may present to the ESM a request to obtain the remuneration for lost generation.³⁸

The objectives enshrined in the Treaty of Functioning of the European Union (TFEU) need always to be taken into consideration when it comes to the authorization of an offshore wind energy power installation including grid connections. Here lies, on one hand, the strong linkage between procedures and authorization, and on the other hand, the protection of the environment. The two often need to be literally “weighted” against the EU secondary sources of law protecting the environment, in particular in interaction with several crucial directives that will be considered in this section. The objectives enshrined in the TFEU framework that need to be taken into consideration when authorizing the construction of offshore wind farms and grid interconnection are: (1) Protecting the environment (for instance where offshore wind farm are constructed in nature-protected areas and combating climate change); (2) Achieving a competitive and secure internal energy market with a free movement of electricity; (3) Promoting the interconnection of energy networks and the development of trans-European networks in the area of energy infrastructure.

Member States of the EU in question need to consider whether the offshore wind power farm projects jeopardize other objectives under EU law, for example, the protection of biodiversity and in that respect, Member States can adopt stringent requirements that in a given case prevent the authorization of renewable energy project.

A concrete example of this situation is the CJEU Italian’s Case C-2/10, Azienda Agro-Zootecnica Franchini Sarl previously mentioned where it was important to understand what objective the construction of an offshore wind farm or grid seeks to achieve and where objective and authorization requirements are connected too and

36. The resolution also delegates other grid operators to issue their own solutions and contractual conditions in order to carry out the connection of offshore wind plants.

37. See the APER Report, *Associazione Produttori Energia da Fonti Rinnovabili*, 2012.

38. The regions in Italy most affected by the phenomenon are in the south of Italy, in particular in Puglia and Campania where there is a high concentration of plants. In case the grid would have been sufficiently developed, production from wind plants in 2010 would have amounted to 9.606 GWh, plus 5% (480 GWh) compared to 9.126 GWh real. See APER Report, *Associazione Produttori Energia da Fonti Rinnovabili*, 2012.

balanced against the requirements in the RES Directive and other objectives contained in other directives protecting the biodiversity.

In particular, the Habitat & Birds Directives³⁹ are fundamental with the objective to protect the species in the EU and preserve natural habitat for certain specie at risk on Natura 2000.⁴⁰

In particular, Article 6, paragraph 3 of the Habitat Directive provides that any plan or project likely to have a significant effect on the management of the site, either individually or in combination with other plans or project, is subject to an assessment of these implications for the site in view of the site's conservation objective. According to the CJEU, these directives do not prohibit all human activities within a Natural 2000 site but simply make authorization of such activity, conditional upon a prior EIA.⁴¹

Therefore, the authorization process for offshore wind energy farm is legally entrenched between the Habitat and Birds Directives, and the directives related to environmental and strategic impact assessment binds Member States' legislations to conduct impact assessment because it is linked to the issuance of authorizations to install power plants.

The EIA Directive is an EIA procedure in force since 1985, applying to a wide range of defined public and private projects, has been modified in 1997 (97/11/EC), 2003 (2003/35/EC) and 2009 (2009/31/EEC).⁴² In Italy, the implementation of this Directive, in particular in the case of an offshore wind energy power plant, is an example of how complicated and numerous the considerations are concerning the authorization process. They have to be taken into consideration often become battlefield between state and regions, and the amount of documentation that is needed for the issuance of authorizations to set an offshore wind farm.⁴³ The procedures are numerous, as already analyzed and described in the previous section.⁴⁴

In the process of the EIA, according to Articles 6, 7 and 8 of the EIA Directive, public shall be consulted which in the offshore wind power in Italy is translated as the participation of the public which can be consulted on environmental issues before the issuance of the decision of authorization. The results are therefore taken into consideration in the process of authorization.

39. Council Directive 92/43/EEC of May 21, 1992 on the Conservation of Natural Habitat and the Protection of Natural Habitats and of Wild Flora and Fauna, OJ L 206 of 22.07.1992 and Council Directive 79/409 EEC of the April 2, 1979 on the Conservation of Wild Birds, OJ L 103 of 25.04.1979.

40. Natura 2000 is a network of core breeding and resting sites for rare and threatened species and some rare natural habitat types which are protected in their own rights and covers twenty-eight EU Countries including land and sea. The aim of the network is to ensure the long-term survival of Europe's most valuable and threatened species and habitats, listed both under the Habitat & Birds Directives. See "Natura 2000 – Environment" at: ec.europa.eu.

41. See Court of Justice, Case C-2/10, *Azienda Agro-Zootecnica Franchini Sarl, Eolica di Altamura Srl v. Region Puglia*, July 21, 2011.

42. Directive 85/337 on the assessment of the effects of certain public and private projects on the environment, OJ 1985 L 175/40, as amended by Directive 97/11, OJ 1997 L 73/5 and Directive 2003/35, OJ 2003 L 156/17.

43. Calabrese, G, "L'Industria dell'Energia Eolica in Italia – Elementi Strutturali e Dinamiche Competitive", 2012, Cacucci Editore. p. 158, footnote 65.

44. See previous section.

The involvement of local communities in renewable energy plannings is not sufficient to deal with the increasing number of protests. According to an Italian Report of 2009,⁴⁵ protests are not dealing only with the offshore wind sector but also with different other sectors and evidence shows how a limited or nonexistent access for the public to the decision-making process had a negative impact on the realization of power plants.⁴⁶ According to the Regional Law of 2007, public debate is possible and not compulsory for projects that present important environmental and social impact. Nevertheless, there is a need to improve the involvement of local communities in the choice of energy infrastructures to avoid form of oppositions as there is a lack of participation in the planning process due to the absence of correct information. The Strategic Environment Assessment Directive, better known as “SEA Directive,” sets the rules for strategic environmental assessment of the effect of certain plans and programs.⁴⁷ Also, provisions related to EIA and SEA Directives are different compared to “Incident Assessment” (Valutazione di Incidenza) as mentioned in the previous section⁴⁸ which explains the amount of bureaucratic passages and documentation.

Without any doubt it would be useful for Italy to find other sources of inspirations from other countries, such as the Danish experience, for example, that provides authorizations procedures quite simplified which award the power of the installations and interesting incentives schemes. This country implemented specific support schemes or adapted to the remuneration level based on *feed-in premium* FiPs,⁴⁹ financing and tendering schemes.⁵⁰ These Danish measures include interesting support for the financing of the preliminary investigations by local wind turbines and adoption of local purchase by citizens and *premiums* based on the power of energy installations. The *feed-in premium* FiPs is based on: (1) call for tender, and (2) and open-door procedure.⁵¹ For the coastal projects, a 20% share of ownership of the projects has to be offered to local residents or companies. Guarantee for loans taken out by local owners are provided by the Danish transmission system operator called “Energinet.dk.” This could be also a solution in case of local opposition that delay or block

45. NIMBY Forum, V edizione (2009), Cantiere Italia. Quando lo sviluppo è una corsa a ostacoli, Aris.

46. Fanetti, S. & Pozzo, B., “Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approaches”, Peters, M., Shoemerus, T., Edward Elgar, 2014, p. 178.

47. Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment, OJ 2001 L 197/30. An assessment under the EIA Directive is without prejudice to the requirements of the SEA Directive, Case C-295/10 Valciukiene and others, Judgment of September 22, 2011, Paragraph 59. See this point in Jan H. Jans & Vedder Hans H.B., “*European Environmental Law After Lisbon*”, Europa Groningen Publishing (2012) p. 366, footnote 32.

48. See previous section.

49. *Feed in premium* FiP are defined as market dependent mechanism.

50. Olsen B.E., “*Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects*”, Chapter 10, in “Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approach”, Peeters M., Shoemerus, T., Edward Elgar, 2014.

51. In Denmark, in the call for tenders, the subsidy to be received in form of a sliding feed in premium is selected by a tender procedure. With regards to the open-door procedure, offshore wind farms under the feed in tariff premium of EUR 30 /MW h for 22,000 equivalent full hours plus EUR 3/MW h for covering the balancing costs. Gonzalez J.S., et al., “*A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development*”, Renewable and Sustainable Energy Review 56 (2016) 5, p. 593.

installations. The Development in the Danish Law has been introduced as a new measure to promote onshore and offshore areas. Specifically, the Danish Renewable Energy Act⁵² has introduced specific measures: (1) local ownership approach which includes a fund support; and (2) a coownership scheme which imposes an obligation on wind energy developers to offer a minimum of 20% ownership of project to local citizens.⁵³

§4.05 CONCLUSION

Even though Italy presents all the potentials to have a strong and prosperous future with offshore energy power, the future is black if the current regulatory and policy framework remains as is and might even lead to a progressive disruption of the current installations. There are numerous points of criticism that represent real barriers for current investments and discourage future operators. There are very strong delays in permitting procedures which are too complicated in part, due to the power of the Region to delay the conclusion of permitting procedures. In addition, the lack of information for operators not thoroughly educated in laws is a reality which furthers the NIMBY syndrome. From the examination of the evolution of the normative period between 2000 until days, it can be concluded that the normative transition in the offshore wind energy power sector in Italy has not been satisfactory. Often there are too many subjects in the decision-making which impede the objective to achieve a satisfactory deal with regards to the all interested parties and stockholders and their interests at stake. Operators must gather a huge amount of opinions and have dialogue with too many actors (natural and legal persons, organizations, institutions, Ministries, etc.). An improvement would be to change strategy with fewer actors and institutions involved where stakeholders would be aware of who or what really counts. A second improvement would be to change the logic of management and regulation as there are too many Ministries involved and too many high costs, for example, costs of auctions and costs of registers mechanism and grid connection mechanisms. In addition, there is a lack of competence from Port Authorities which are military bodies and often have no background or understanding of renewable energy law and policy. Nevertheless, they are still part of the process of authorization and sit at the board of the decision-making process in the authorization process.

In the light of this analysis, it is therefore recommended to (1) avoid letting the current situation affect the whole sector; and (2) modify the current incentive system by simplifying the current permit and licensing system establishing, for example a bonus for production increases, and (3) to find possible solutions to get free from this impasse by finding sources of inspiration from other countries when redesigning the regulatory framework. Countries such as Denmark or Germany which have much more

52. First renewable Energy Acts, Act No. 1392 of December 27, 2008 as replaced by Consolidated Act on Renewable Energies No. 1074 of November 8, 2011.

53. Olsen B.E., “Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects”, Chapter 10, in “Renewable Energy Law in the EU – Legal Perspectives on Bottom-up Approach”, Peeters M., Shoemerus, T., Edward Elgar, 2014, pp. 195–196.

targeted programs, simplified normative procedures, and not too long and burdensome authorization processes, could be the perfect source of inspiration to redesign Italy's offshore wind energy power sector regulatory framework.