



UvA-DARE (Digital Academic Repository)

Energy Conservation and Electricity Sector Liberalisation: towards a Green and Competitive Electricity Supply?

Slingerland, S.

Publication date
1999

[Link to publication](#)

Citation for published version (APA):

Slingerland, S. (1999). *Energy Conservation and Electricity Sector Liberalisation: towards a Green and Competitive Electricity Supply?* [Thesis, fully internal, Milieukunde, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, P.O. Box 19185, 1000 GD Amsterdam, The Netherlands. You will be contacted as soon as possible.

Contents

1. Introduction	1
1.1 Research Objectives	2
1.2 Outline of the Thesis	2
2. Method	3
2.1 Energy Conservation	3
2.2 Electricity Sector Liberalisation	5
2.3 Country Selection	7
2.4 Data Collection	8
2.5 Evaluation	11
2.6 Scope and Limitations	11
3. The Netherlands	13
3.1 Dutch Electricity Supply	15
3.2 Trends in Dutch Electricity Supply	17
3.3 Energy Conservation	19
3.4 Case 1: Cogeneration of Heat and Power – Industrial CHP	20
3.5 Case 2: Renewables - Wind Energy	25
3.6 Case 3: Demand Management - The MAP Levy	29
3.7 The Future - Discussion and Conclusions	32
4. Denmark	39
4.1 Method of Analysis	40
4.2 Danish Electricity Supply	41
4.3 Renewables: Wind Energy	43
4.4 More Efficient Use of Fossil Fuels: Small-Scale Cogeneration	46
4.5 Management of End-User Demand: Integrated Resource Planning	48
4.6 Conclusions and Recommendations for Dutch Electricity Supply	49

5. Germany	55
5.1 Method of Analysis	56
5.2 The German Electricity Sector	57
5.3 Wind Energy	60
5.4 Cogeneration	62
5.5 Demand-Side Management	64
5.6 Lessons for Reconciling Energy Conservation and Liberalisation in the Dutch Electricity Sector?	66
6. United Kingdom	75
6.1 Electricity Sector Liberalisation in the Netherlands and the United Kingdom	77
6.2 Efficient Fossil Fuel Generation Technologies: Cogeneration	79
6.3 Renewables: Wind Energy	85
6.4 Reduction of End-User Demand: Demand-Side Management	91
6.5 Discussion and Conclusions: Lessons for other Countries?	94
7. Waste and Electricity	101
7.1 Method of Analysis	102
7.2 The Dutch Waste and Electricity Sectors	103
7.3 A Hypothetical Intervention	110
7.4 Discussion and Conclusions	115
8. Country Comparison	121
8.1 Research Method	122
8.2 Liberalisation of the Electricity Sector: Implemen- tation in the Netherlands, Denmark, Germany and the United Kingdom	123
8.3 Case Study 1: Cogeneration	124
8.4 Case Study 2: Wind Energy	130
8.5 Case Study 3: Demand-Side Management and Energy Efficiency	134
8.6 Conclusions	137

9. Evaluation	143
9.1 Evaluation Results	143
9.2 Cogeneration	145
9.3 Wind Energy	151
9.4 Demand-Side Management	156
9.5 Discussion	162
10. Conclusions	169
10.1 Method	169
10.2 The Case Studies	171
10.3 Energy Conservation and Electricity Sector Libe- ralisation: Towards a Green and Competitive Electricity Supply?	180
Postscript	185
Appendix A.	189
Interviews	
Appendix B.	193
Publications	
Summary	195
Samenvatting	205

