Ph.D. course

Electricity Economics

Department of Economics and Resource Management (IØR)
Norwegian University of Life Sciences (UMB), Ås

Lecturer: Richard Green, Professor, Dep. of Economics, University of Birmingham
Dates: 30 August - 3 September 2010
Place: Ås, Norway
Credits: 5 ECTS
Course code: ECN 480
Application deadline: 22th of August 2010

Objectives
This course will show how economic analysis has been, and is being, applied to the electricity industry. Key themes will include the relationship between costs and market prices, methods of regulating monopolies, and the desirable level of investment. Ways of internalising environmental effects, such as carbon emissions, will be considered at length during the course. The course is intended for PhD students, early-career researchers and advanced Masters students, and there will be some opportunities for participants to present their work during the course.

Course schedule

Monday 30 August
Morning  Introduction to the electricity industry – technology and economics
Afternoon Overview of liberalisation
System planning exercise

Tuesday 31 August
Morning  Electricity transmission
Afternoon Wholesale markets for electricity

Wednesday 1 September
Morning  Economic regulation in theory and practice
Afternoon The fuel industries
Electricity retailing

Thursday 2 September
Morning  Market power models and studies
Afternoon Price control exercise

Friday 3 September
Morning  Energy policy, carbon trading, support for renewable generation

Depart after lunch
Abstract and participation
Students who wish to present their work should send a 2-page abstract to Inger-Lise Labugt by August 9th – they will be notified whether they will be asked to give a presentation (which is likely to be for between 15 and 30 minutes, depending on demand, by August 18th).

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The lecturer
Richard Green is currently the Director of the Institute for Energy Research and Policy and Professor of Energy Economics in the Department of Economics at the University of Birmingham. He has worked at the University of Cambridge (where he took his degrees) and the University of Hull, and held visiting positions at the Office of Electricity Regulation, University of California Energy Institute, and the Massachusetts Institute of Technology. Professor Green is further a member of the Supergen Flexnet Consortium, and an Associate of the Electricity Policy Research Group. He is also a Fellow of the Energy Institute.

Readings
These form a “long bibliography” for further research, rather than expected reading for course participants. Students who wish to do some background reading (entirely optional) before the course begins are advised to concentrate on the starred items (*).

Introduction to the electricity industry and its economics

Generation

Liberalisation


Market Design


Market power


Retail markets


Regulation


Policy


Cost-benefit studies

Damsgaard, N. and R.J. Green (2005) *Regulatory Reform in the Swedish Electricity Industry – Good or Bad?* SNS Occasional Paper No 95, ISSN 1400-2159