

# YIHSU CHEN

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## EDUCATION

**Ph.D.** Environmental and Energy Economics, Dep. of Geography and Environ. Eng.  
**The Johns Hopkins University**, Baltimore, MD (Oct. 2006)

Dissertation: "*Essays on the Interaction of Electricity Markets with Environmental Policies*,"  
Advisor: Professor Benjamin F. Hobbs

**M.S.** in Environmental Health and Health Policy and Management  
**Harvard University**, School of Public Health, Boston, MA (1997 -1999)

**B.S.** in Environmental Science, **Tunghai University**, Taichung, Taiwan (1991-1995)

## RESEARCH INTERESTS

- Analyze energy and environmental policy and system using mathematical modeling, game theory, statistics/econometrics, operations research, decision analysis and other quantitative techniques
- Examine air pollution health effects using environmental epidemiological framework

## RESEARCH EXPERIENCE

**Assistant Professor**, University of California, Merced, US (2006-present)

**Research Assistant**, Johns Hopkins University, MD, US. (2000–2006)

**Visiting Energy Economist**, Energy Research Center of the Netherlands, ECN (May-July, 2005)

**Research Associate**, National Taiwan University, Taipei, Taiwan (1999-2000)

**Summer Internship**, Harvard University, Center for Risk Analysis, Boston, MA, US (1998, Summer)

## PROFESSIONAL ACTIVITIES

### Publications

- Y. Chen, B.F. Hobbs, S. Leyffer and T. Munson, "*Solution of Large-Scale Leader-Follower Market Equilibria Problems: Electric Power and NO<sub>x</sub> Permit Markets*," **Computational Management Science**, 3(4): 307-330, 2006
- J. Sijm, K. Neuhoff, and Y. Chen, "*CO<sub>2</sub> Costs Pass Through and Windfall Profits in the Power Sector*," **Climate Policy**, 6(1): 49-72, 2006
- Y. Chen and B.F. Hobbs, "*An Oligopolistic Power Market Model with Tradable NO<sub>x</sub> Permits*," **IEEE Trans. on Power Systems**, 20(1): 119-29, 2005

- J. Sijm, S.J.A. Bakker, Y. Chen, H.W. Harmsen, and W. Lise, “*CO<sub>2</sub> Price Dynamics: the Impact of EU Emissions Trading on the Price of Electricity*,” ECN-C—05-081, Energy Research Centre of the Netherlands (ECN), Petten, 2005
- J. Sijm, Y. Chen, M. Donkelaar, S. Hers and M. Scheepers, “*CO<sub>2</sub> Price Dynamics: A follow-up analysis of the implications of EU emissions trading for the price of electricity*,” ECN-C—06-015, Energy Research Centre of the Netherlands (ECN), Petten, 2006
- B.F. Hobbs, E. Bartholomew, Y. Chen, G. Drayton and W. Lise, “*Improved Transmission Representations in Oligopolistic Market Models*,” Proceedings of PSE Annual Meeting, Atlanta, GA, 2006
- Y. Chen and B.F. Hobbs, " *An Oligopolistic Electricity Market Model with Tradable NO<sub>x</sub> Permits*," Proceedings of IAEE North America Conference, Mexico City, Mexico, October, 2003
- Y. Chen, J. Sijm, B. F. Hobbs and W. Lise, “*Implications of CO<sub>2</sub> Emissions Trading for Short-run Electricity Market Outcomes in Northwest Europe*”, submitted to **Journal of Regulatory Economics**

### Presentations

- “*Large-Scale Computational Spatial Equilibrium Market Models: Application to Electric and NO<sub>x</sub> Emissions Markets*,” University of California Merced, March 2, 2006
- “*Generational Cost Benefit Analysis and the Social Cost of Carbon*,” Southern Economics Association, Washington, DC, November, 18-20, 2005
- “*CO<sub>2</sub> Price Dynamics: the Impact of EU Emissions Trading on the Price of Electricity*,” INFORMS Annual Conference, San Francisco, November 13-16, 2005 (poster)
- “*Implications of Climate Change for Regional Air Pollution, Health Effects and Energy Consumption Behavior: Selected Emission Results*,” IAEE International Conference, Taipei, Taiwan, June 3-6, 2005
- “*Oligopolistic Power Markets with Transmission, Forward Contracts, Reserve Markets and NO<sub>x</sub> Permits*,” INFORMS Annual Conference, Denver, October 24-27, 2004
- “*Interaction of Oligopolistic Transmission-Constrained Power Markets with Renewable Portfolio Standards, Green Pricing Programs, and Emission Allowances*,” IAEE North American Conference, Washington, DC, July 8-10, 2004
- “*An Oligopolistic Electricity Market Model with Tradable NO<sub>x</sub> Permits*,” IAEE North American Conference, Mexico City, October 19-21, 2003

### Membership and Affiliation

- International Association of Energy Economics (IAEE), Japan Institute of Environmental Economics, and Institute of Operations Research and Management Sciences (INFORMS), Association of Environmental and Resources Economics (AERE)

### Journal Referee

Environmental Science and Technology, Journal of Environmental Economics and Management, Journal of the Air and Waste Management Association, The Energy Journal, European Journal of Operations Research, IEEE Transactions on Power, Systems, IEE Proceedings of Generation, Transmission and Distribution, ASCE Journal of Energy Engineering, and Energy: The International Journal

### HONORS AND AWARDS

Best Student Paper Award, ENRE (Energy, Natural Resources, & Environment) Section, INFORMS Annual Conference, Denver, October 24-27, 2004 (Title: *An Oligopolistic Electricity Market Model with Tradable NO<sub>x</sub> Permits*)