# **CURRICULUM VITAE**

# A. Denny Ellerman

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## **EDUCATION**

PRINCETON UNIVERSITY

A.B., Public and International Affairs, 1964

HARVARD UNIVERSITY

Ph. D., Political Economy and Government, 1977

## **EMPLOYMENT**

2010-	EUROPEAN UNIVERSITY INSTITUTE Part-time Professor, Robert Schuman Center for Advanced Studies
1992-2009 1992-2005	MASSACHUSETTS INSTITUTE OF TECHNOLOGY Senior Lecturer, Sloan School of Management Executive Director, Center for Energy and Environmental Policy Research and the Joint Program for the Science and Policy of Global Change
1988-92	CHARLES RIVER ASSOCIATES, INC. Vice President
1982-87 1979-81	NATIONAL COAL ASSOCIATION Executive Vice President Vice President, Policy Analysis
1978-79 1976-77 1975-76 1974-75	U.S. GOVERNMENT Department of Energy (Deputy Assistant Secretary) Office of Management and Budget (Program Analyst) Energy Research and Development Administration (Branch Chief) National Security Council (International Economist)

## PROFESSIONAL ACTIVITIES

2011- 2006-	REVIEW OF ENVIRONMENTAL ECONOMICS AND POLICY Co-editor Editorial Board
2010-	Member, Conseil scientifique, Chaire Economie du Climat, Université Paris-Dauphine
2009-	Member, Scientific Board, Economics for Energy, Vigo, Spain
	ELECTRICITE DE FRANCE
2009-	Member, Panel on Sustainable Development
2005-08	Member, Conseil de l'environnement
2005-06	Leader, External Review Team, Energy Information Administration U.S. Department of Energy
2004-07	Member, Scientific Advisory Board to the Secretary of the
	Environment, Commonwealth of Massachusetts
2004-07	Member, Economics Advisory Group, European Environmental Agency
1997-2009	Editorial Board, The Energy Journal
	INMEDNIAMIONIAI ACCOCIAMION EOD ENEDCY ECONOMICC
1992	INTERNATIONAL ASSOCIATION FOR ENERGY ECONOMICS  Past President and Chairman Numinating Committee
1992	Past President and Chairman, Nominating Committee Immediate Past President and Chairman, Awards Committee
1990	President
1989	President-elect
1986	Treasurer

## HONORS AND AWARDS

Zurich Distinguished Visitor at the Bren School of Environmental Science and Management, University of California, Santa Barbara, 2011.

Fulbright Lecturer at the University of Paris-1 (Panthéon-Sorbonne), EU Research Award, 2006

Outstanding Contributions to the Profession of Energy Economics, 2001, International Association for Energy Economics

Outstanding Service Medal, U.S. Department of Energy, 1979.

## **PUBLICATIONS**

#### Books:

Pricing Carbon: The European Union Emissions Trading Scheme (with Frank Convery and Christian de Perthuis), Cambridge University Press (2010). Also published in French: Le Prix du Carbone: Les enseignements du marché du carbone, London: Pearson, 2010.

Allocation in the European Emissions Trading Scheme: Rights, Rents, and Fairness, (edited with Barbara Buchner and Carlo Carraro), Cambridge University Press, 2007.

Markets for Clean Air: The U.S. Acid Rain Program (with Paul L. Joskow, Richard Schmalensee, Juan Pablo Montero and Elizabeth M. Bailey), Cambridge University Press, 2000.

#### Articles in edited volumes:

"The EU's Emissions Trading Scheme: A proto-type global system?" *Post-Kyoto International Climate Policy* (Joe Aldy and Robert N. Stavins, eds.), Cambridge University Press (2010)

"A Global Carbon Market: from Kyoto to Copenhagen via the EU ETS," in Delgado, Juan and Stephen Gardner (eds.), *Beyond Copenhagen: A climate policy maker's handbook*, Bruegel Books, Brussels, 2009

"Absolute vs. Intensity Limits for CO<sub>2</sub> Emission Control: Performance under Uncertainty" (with Ian Sue Wing and Jaemin Song), *The Design of Climate Policy* (Henry Tulkens and Roger Guesnerie, eds.), MIT Press, 2009.

"Are cap-and-trade programs more environmentally effective than conventional regulation?" *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*, (Charles Kolstad and Jody Freeman, eds.), Oxford University Press, 2006.

"The sources of emission reductions: evidence from the U.S. SO<sub>2</sub> emissions from 1985 through 2003," (with Florence Dubroeucq), in *Emissions Trading and Business* (Ralf Antes, Bernd Hansjurgens and Peter Letmathe, eds.), Physica-Verlag Heidelberg, 2006.

"US Experience with Emissions Trading: Lessons for CO<sub>2</sub> Emissions Trading," *Emissions Trading for Climate Policy: US and European Perspectives*, (Bernd Hansjuergens, ed.), Cambridge University Press, 2005, pp. 78-95.

"Sources of Productivity Growth in the American Coal Industry, 1972-95, (with Thomas Stoker and Ernst R. Berndt)", in Dean, Edwin, Michael Harper and Charles Hulten (eds.), *New Directions in Productivity Analysis*, National Bureau of Economic Research, 2001, pp. 373-413.

"An Interim Evaluation of Sulfur Dioxide Emissions Trading," (with Richard Schmalensee, Paul L. Joskow, Juan Pablo Montero and Elizabeth M. Bailey), *Economics of the Environment: Selected Readings*, 4th edition (Robert N. Stavins, ed.), pp. 455-471, W.W. Norton & Company, New York: 2000. First published in *Journal of Economic Perspectives* 12:3 (summer 1998), pp. 53-68,

"From Autarkic to Market-based Compliance: Learning from our Mistakes," in Kosobud, Richard F. (ed.), *Emissions Trading: Environmental Policy's New Approach*, John Wiley & Sons, Inc., 2000, pp. 190-215.

"Summary evaluation of the US SO<sub>2</sub> emissions trading program as implemented in 1995," in Sorrell, Steve and Jim Skea (eds.), *Pollution for Sale: Emissions Trading and Joint Implementation*, Edward Elgar Publishing Ltd, 1999.

# Articles in peer-reviewed journals:

"Short-term CO<sub>2</sub> abatement in the European Power Sector: 2005-2006," (with Erik Delarue and William D'haeseleer), *Climate Change Economics*, I:2 (2010), pp. 1-21.

"Robust MACCs? The topography of abatement by fuel switching in the European power sector", (with Delarue, ED and WD D'haeseleer), *Energy*, 35:3 (2010), pp. 1465:1475.

"Cross-border Trading and Borrowing in the EU ETS," (with Raphael Trotignon), in Labandeira, Xavier and Jose M. Martin-Moreno (eds.), *Climate Change Policies after 2012*, special issue 2 of *The Energy Journal*, 30 (October 2009).

"Over-allocation or Abatement? A Preliminary Analysis of the EU ETS Based on the 2005-06 Emissions Data", (with Barbara Buchner), *Environmental & Resource Economics*, 41:2 (Oct 2008), pp. 267-287. (Received Best Paper Award)

"New entrant and closure provisions: How do they distort?" *The Energy Journal*, 28: Special Issue (2007), pp. 63-78.

"The efficiency and robustness of allowance banking in the U.S. Acid Rain Program" (with Juan-Pablo Montero), *The Energy Journal*, 28:4 (October 2007), pp. 67-91. (Received Best Paper Award)

"The European Union Emissions Trading Scheme: Origins, Allocation, and 2005 Results" (with Barbara Buchner), *Review of Environmental Economics and Policy*, I:1 (Winter 2007), pp. 66-87.

"Climate Change Taxes and Energy Efficiency in Japan," (with Satoru Kasahara, Sergey Paltsev, John Reilly, and Henry D. Jacoby), *Environmental & Resource Economics*, 37:2 (2007), pp. 377-410.

"A Note on Tradeable Permits," Environmental & Resource Economics 31 (2005): 123-131

"Panel Data Analysis of U.S. Coal Productivity" (with Ernst R. Berndt, Susanne M. Schennach, and Thomas M. Stoker), *Journal of Econometrics*, 127:2 (August 2005), pp. 131-164.

- "The 'Safety Valve' and Climate Policy," (with Henry D. Jacoby), *Energy Policy*, 32: 481-191 (2004).
- "Absolute vs. Intensity-based Caps." (with Ian Sue Wing). March 2003. *Climate Policy*, 3S2: S7-S20 (2003)
- "Designing a Tradable Permits System to Control SO<sub>2</sub> Emissions In China: Principles and Practice," *The Energy Journal*, 23:2 (April 2002), pp. 1-26.
- "Supplementarity: An Invitation to Monopsony?" (with Ian Sue Wing), *The Energy Journal*, 21:4 (October 2000), pp. 29-59.
- "The Next Restructuring: Environmental Regulation," *The Energy Journal* 20:1 (1999), pp. 141-147.
- "The Declining Trend in Sulfur Dioxide Emissions: Implications for Allowance Prices," (with Juan Pablo Montero), *Journal of Environmental Economics and Management* 36 (1998), pp. 26-45.
- "Note on the Seemingly Indefinite Extension of Power Plant Lives," *The Energy Journal* 19:2 (1998), pp. 129-132.
- "CO<sub>2</sub> Emissions Limits: Economic Adjustments and the Distribution of Burdens," (With H. D. Jacoby, R.S. Eckaus, R.G. Prinn, D.M. Reiner and Z. Yang), *The Energy Journal*, 18:3 (1997), pp. 31-58.
- "The Competition between Coal and Natural Gas: The Importance of Sunk Costs," *Resources Policy*, v. 22, n. 1/2 (March/June 1996), pp. 33-42.
- "The World Price of Coal" Energy Policy, v. 23, n. 6 (June 1995), pp. 499-506.

## Articles in press

- "Allocation in Air Emissions Markets" in Glachant, Jean-Michel and Eric Brousseau (eds.), *Manufacturing Markets: Legal, political and economic dynamics*, (forthcoming) Available as MIT-CEEPR Working Paper 2009-016 (November 2009).
- "Governance issues in multi-national cap-and-trade systems: Centralization and harmonization," in Jouvet, Pierre-Andre and Eric Brousseau, (eds.), *Global Environmental Commons: Analytical and Political Challenges in Building Governance Mechanisms*, Oxford University Press (forthcoming).

## Other publications:

- "A global carbon market: From Kyoto to Copenhagen via the EU ETS," in Delgado, Juan and Stephen Gardner (eds.) *Beyond Copenhagen: A climate policymaker's handbook*, Brussels: Bruegel Books, 2009.
- "Yes. Cap-and-trade addresses inequity—without losing efficiency," in Hard Talk Forum of *Americas Quarterly* (summer 2009).

"Designing a US Market for CO<sub>2</sub>," (with John D. Parsons and Stephan Feilhauer), *Journal of Applied Corporate Finance* (A Morgan Stanley publication), 21:1:1-8 (Winter 2009).

Cap-and-Trade: Contributions to the Design of a U.S. Greenhouse Gas Program, (with Mort D. Webster, John Parsons, Henry D. Jacoby, and Meghan McGuinness), final report of the Doris Duke Charitable Foundation project, published by MIT-CEEPR (November 2008).

The European Union's CO<sub>2</sub> Cap-and-Trade System in Perspective, (with Paul Joskow), report commissioned and published by the Pew Center for Global Climate Change (May 2008).

The European Carbon Market in Action: Lessons from the First Trading Period, Interim Results, (with Frank Convery and Christian de Perthuis), MIT Joint Program Report 162 (June 2008).

"US experience with emissions trading," CESifo DICE Report: Journal of Institutional Comparisons, V:4 (Winter 2007), pp. 13-16.

"Shortage, Inter-period Pricing and Banking" (Invited Point of View with John Parsons), *Tendances Carbone: The European carbon market monthly bulletin*, No. 5 (July 2006), available at: http://www.caissedesdepots.fr/GB/espace\_presse/publications\_doc/tendances\_carbone\_n5\_eng.pdf.

"The U.S. SO<sub>2</sub> Cap-and-Trade Programme," *Tradeable Permits: Policy Evaluation, Design and Reform,* chapter 3, pp. 71-97, OECD (2004)

Emissions Trading: Experience, Lessons, and Considerations for Greenhouse Gases. (with Paul L. Joskow and David L. Harrison). Washington, DC: Pew Center on Global Climate Change, 2003.

"Tradable Permits," CESifo Forum, v. 4, n. 1 (Spring 2003).

"Clearing the Polluted Sky," (op-ed with Paul L. Joskow), *The New York Times*, May 1, 2002.

"Who Really Wants a Climate Agreement Anyway?" (with Henry D. Jacoby) *The World Today*, vol. 57, no. 7 (July 2001), pp.23-24.

"The U.S. SO<sub>2</sub> Allowance Trading Program," *Revue de l'Energie*, No. 527 (June 2001), pp. 315-320.

"Le Défi Européen: Issues in the Implementation of Greenhouse Gas Emissions Trading in Europe," *Revue de l'Énergie*, No. 524 (Feb 2001), pp. 105-11.

"Obstacles to Global CO<sub>2</sub> Trading: A Familiar Problem," in Walker, Charls E., Mark A. Bloomfield and Margo Thorning (eds.), *Climate Change Policy: Practical Strategies to Promote Economic Growth and Environmental Quality*, American Council for Capital Formation Center for Policy Research, Washington, DC, May, 1999, pp. 119-132.

"Coal and Kyoto," Oxford Energy Forum, n. 34, August 1998.

# Working papers not otherwise published:

Grandfathering and the endowment effect: An assessment in the context of the Spanish National Allocation Plan, (with Mar Reguant-Rido), MIT-CEEPR Working Paper 2008-018 (November 2008).

A top-down and bottom-up look at emissions abatement in Germany in response to the EU ETS, (with Stephan Feilhauer), MIT-CEEPR Working Paper 2008-017 (November 2008).

"CO<sub>2</sub> abatement in the UK power sector in response to the EU ETS," (with Meghan McGuinness), MIT-CEEPR Working Paper 2008-010 (September 2008).

Lessons from Phase 2 Compliance with the U.S. Acid Rain Program. MIT/CEEPR Working Paper 03-009 (May 2003)

Analysis of Post-Kyoto CO<sub>2</sub> Emissions Trading Using Marginal Abatement Curves (with Annelène Decaux), MIT Joint Program Report No. 40 (October 1998).