



Dr. Karel Nolles

Director, Aton Consulting Pty Ltd
and Aton Experimental Labs

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EDUCATION

PhD: The University of New South Wales: "*Using markets as instruments of public policy*". Major subjects areas: Experimental Economics, Financial Markets and Institutions, Electricity Markets, Environmental Markets, Electricity System Planning and Design
Bachelor of Electrical Engineering (Hons): University of Melbourne
Bachelor Arts/Law : Macquarie University, Sydney: (incomplete)

CURRENT EMPLOYMENT

Associate Director, Capital Products, Macquarie Capital, 2007-
Director, Aton Experimental Economics Lab, (2006-) and Aton Consulting Pty Ltd (1996 -)

Karel commenced as an Associate Director of the Global Climate Change Practice at Macquarie Capital (then Macquarie Bank) in June 2007. He has carriage of a range of environmental and energy market investments and new business initiatives. He continues to be the owner and Director of Aton Consulting, and the Aton Experimental Economics Labs in a part-time capacity.

PREVIOUS EMPLOYMENT

Senior Research Fellow, Faculty of Commerce & Economics, University of NSW. 2004-2005
Senior Research Fellow, UNSW Centre for Energy & Environmental Markets. 2004-2005
Manager, Environmental Markets, Australian Financial Markets Association (AFMA), 2001-2005
Director and co-owner, Enviro-Ratings Management Pty Ltd, 2000 – 2001
Consultant / Project Manager / Managing Consultant, Energetics Pty Ltd, Sydney, Melbourne, Bangkok, 1991 - 1999

EXTERNAL APPOINTMENTS

Visiting Research Fellow, Interdisciplinary Centre for Economic Science (ICES), George Mason University, Washington DC. 2003 & 2004

PROFESSIONAL SOCIETIES

International Association of Energy Economics
Australian Agricultural and Resource Economics Society

TEACHING AREAS

Experimental Economics, Financial products in respect of energy and environmental markets, Financial Markets and institutions.

CURRENT RESEARCH INTERESTS

Environmental Market design and implementation, and the application of Experimental Economics. Particular focus on the Australian Renewable Energy Market and electricity markets. Electricity industry restructuring, including electricity market design, ancillary services, network pricing, industry regulation and environmental externalities.

SELECTED PUBLICATIONS (ARTICLES & REPORTS)

- Macgill, Nolles, Outhred (2006) – "Some design lessons from market-based greenhouse gas regulation in the restructured Australian electricity industry" *Energy Policy*, Vol 34/1 pp 11-25, January 2006
- Macgill, Nolles, Outhred (2003) – "Experience with Market-based Approaches to Climate Change Regulation in the Australian Electricity Industry" Conference Paper at 6th Australian Agricultural and Resource Economics Society (AARES) Annual National Symposium.
- MacGill, Nolles, Outhred (2003) Experience with Market-Based Climate Change Regulation in the Restructured Australian Electricity Industry. Submitted to *Journal of Energy Policy*.
- Outhred, Nolles, MacGill, Watt and Passey (2002) – "Environmental Regulation of the Australian Electricity Industry". Refereed paper presented to International Solar Energy Society conference.
- Outhred, Nolles (2002) "A Review of Initiatives to Support Renewable Energy Generation in the Australian Electricity Industry". International Association of Energy Economics Conference Paper
- Nolles K., H. Outhred and I. MacGill (2002) "Managing Electricity Related Greenhouse Emissions in New South Wales via Retail Licence Conditions – Projected Impacts and the Importance of Accurate Accounting", ERGO discussion papers
- Iain MacGill, Hugh Outhred and Karel Nolles. (2003) "National Emissions Trading for Australia: key design issues and complementary policies for promoting energy efficiency, infrastructure investment and innovation." *Australian Journal of Energy Management (AJEM)* Volume 11 Number 1, March 2004
- Nolles, Hughes (2001) "Greenhouse and Sustainable Profits at Risk in the Electricity Industry." *Finance and Treasury Association Journal*

SELECTED PROFESSIONAL ADVICE & CONSULTING

- Ergon Energy: An experimental economics investigation of the Mandatory Renewable Energy Market. 2006
- ASX: Research grant to develop experimental economics tools for education. 2005
- AFMA/Government of Tasmania: Implementation of Basslink Settlement Residue Auctions. 2005-06
- NSW Environment Protection Agency: Advice on energy demand management. 2003
- AFMA: Rewrite of the AFMA Electricity Dealing Training Manual. (In association with AFMA Consulting.) 2003
- NSW Environment Protection Agency: Design of primary issuance auction for the Hunter River Salinity Trading Scheme. (AFMA consulting). 2003
- Electricity Reform & Sales Unit, South Australia: Sustainability Issues in Electricity Restructuring (with Energetics), 1998
- NEMMCO: Review of Impact of the Financial Services Reform Act 2002 on the Settlement Residue Auctions. (AFMA Consulting)
- Deutsche Bank: Advisor on development of carbon sequestration fund. 2001-02
- NSW Environment Protection Agency: Effectiveness Audit of NSW Retailers GHG Reduction Strategies. (ACRE). 2001
- Origin Energy, Assessment of opportunities for natural gas from a carbon constrained utility sector. 2001
- Office of the Hon. Dr. Chesterfield-Evans, Member of the NSW Legislative Council. Parliamentary staffer and advisor on energy policy issues. 1999-2000
- Australian Stock Exchange, Research on the development of greenhouse emissions trading. 1999
- National Energy Policy Office of Thailand: Analysis of impact of electricity tariff reform on agro-industry. 1995-1996