

## Energy Library update December 2005

The final update for the year - all of our best wishes for a happy holiday season. The Energy Library will stop taking requests from noon on December 21<sup>st</sup> and reopen on the 5<sup>th</sup> of January 2006. We'd be very grateful if you were able to have a quick look at your desk and return any outstanding books or journals before the end of the year.

The following is a list of books, journals and journal articles recently received by the Energy Library, as well as free web resources of interest to those working in the energy sector.

These are only a few of our new resources - don't forget to check out other new resources in the library catalogue by clicking on the "quick clicks" link and then "new items". If you can't log on to the catalogue, or have lost your password email us - we're always happy to help.

If you would like to receive any of our resources please email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz) quoting the title of the item. Charging depends on the agreement your organisation has with the library.

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### Featured Energy Library Journal

#### Electric Power Systems Research

An international journal devoted to research and new applications in generation, transmission, distribution and utilisation of electrical power. The journal aims to present to the international community important results of work in this field, whether in the form of research, development, application or design.

This journal covers:

- Generation techniques ranging from advances in conventional electromechanical methods, through nuclear power generation, to discoveries in solar related generation.
- Transmission, spanning the broad area from UHV development to line routing and design.
- Substation work: equipment design, protection and control systems.
- Distribution techniques - underground installation and equipment development.
- The utilization area from energy conservation methods to distributed load levelling techniques.
- Systems studies including control techniques and planning.

Electric Power Systems Research is available on circulation (3 day loan per person) and through our Table of Contents service, which lets you get the table of contents and abstracts of selected journals emailed to you as they are published.

## Books - Summer Reading

**Executive EQ: Emotional intelligence in Business**, Robert Cooper and Ayman Sawaf, Orion, 1997  
This book is based on the premise that in order to be successful, both personally and professionally, you have to be emotionally *and* intellectually intelligent. It is based on a test of emotional intelligence, and offers practical guidelines for how to develop and apply emotional intelligence in the workplace.

**Clear your desk!** Declan Treacy, London, 1991.  
Subtitled "The definitive guide to conquering your paper workload - forever!" this book has to be useful for those who are engaged in a constant battle with paperwork. Full of practical ideas and solutions, this is a quick and sensible book to read ... just don't lose it on your desk! For those who have good intentions but are short of time, this recent [article](#) gives some useful pointers.

**Funky Business: Talent makes capital dance**, Jonas Ridderstrale, Kjell Nordstrom, Financial Times Management, 2002  
The premise of this book, written by two Swedish academics from the Stockholm School of Business is that "Traditional roles, jobs, skills, ways of doing things, insights, strategies, aspirations, fears, and expectations no longer count. In this environment, we cannot have business as usual. We need business as unusual. We need different business. We need innovative business. We need unpredictable business. We need surprising business. We need funky business." You might hate this book, or it might be a fun and fresh way of thinking about what you do. Still, if you pick up a book called 'Funky Business', you have some idea of what you're in for!

**Blur: The speed of change in the connected economy**, Stan Davis and Christopher Meyer, Ernst and Young, 1998  
Their speculations are built on three forces, speed, intangibles and connectivity, which they revisit throughout the book from many perspectives. One of the breakthroughs of this book is the idea of "offers," inextricably linked products and services. In this new marketplace, the authors suggest organizations should take the "bacterial approach" - breed quickly, mutate often and let the environment decide your fate. In other words, create offers through combinations and mutations, put them in the marketplace and see whether they are accepted or rejected by the market.

**Fad surfing in the boardroom: reclaiming the courage to manage in the age of instant answers**, Eileen Schapiro, Massachusetts, 1995.  
If all this business speak make your head swim, you might find this book more up your alley. It attempts to distill the good from management fads, highlight the pitfalls, and suggests that good ideas implemented at the wrong time can have little or no effect. Good advice for strategic thinkers and planners.

## Journal Articles and reports

Sutherland, R. **Adding generating capacity - Does higher reliability of the electrical grid justify the cost imposed on consumers?** (2005) *Energy (Norwalk, Connecticut)*, 30 (1), Pages 19-22.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

Neuhoff, K., Newberry, D. **Evolution of electricity markets: Does sequencing matter?** (2005) *Utilities Policy*, 13 (2 SPEC. ISS.), Pages 163-173.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

**Better safe than sorry? Reliability policy in network industries**, CPB Netherlands Bureau for Economic Policy Analysis, 2004  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

[Holy Grail Found: Absolute, definitive proof that responsible companies perform better financially](#),  
Marjorie Kelly, *Business Ethics*, Fall 2005.  
This article is available free online.

Shrestha, G.B., Feng, W. **Effects of series compensation on spot price power markets**,  
(2005) *International Journal of Electrical Power and Energy Systems*, 27 (5-6), Pages 428-436.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

**Economic Analysis: Co-generation Using Wind and Biodiesel-Powered Generators**, Douglas G. Tiffany, Department of Applied Economics, College of Agricultural, Food, and Environmental Sciences, University Of Minnesota, October 2005  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

Chung, W., Hui, Y.V., Lam, Y.M. **Benchmarking the energy efficiency of commercial buildings**,  
(2006) *Applied Energy*, 83 (1), Pages 1-14.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

Pehnt, M. **Dynamic life cycle assessment (LCA) of renewable energy technologies**, (2006) *Renewable Energy*, 31 (1), Pages 55-71.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

A new report suggests that slackers are getting off lightly in New Zealand, especially those working in the private sector where managers are perceived to be too tolerant of lazy staff. The key findings are presented in a recent [article](#). This article references:

**How to Motivate Your Problem People**, by Nigel Nicholson, *Harvard Business Review*, January 2003, which is available from the Energy Library.  
(To receive a copy of this article email [library@energylibrary.co.nz](mailto:library@energylibrary.co.nz))

## Blast from the past - oldies but goodies from the Energy Library collection

**The Science of Victorian Brown Coal: Structure, Properties and Consequences for Utilization**, ed. R.A. Durie, CSIRO, Australia, 1991

This book gives an overview of the properties of brown coals, and how they can be used. Extensive literature on the structure, chemical and physical characteristics is presented with over 2000 references.

**Handbook of Electric Power Calculations**, H Wayne Beatty, 3<sup>rd</sup> edition, McGraw-Hill Professional, 2000

A bestselling calculations handbook that offers electric power engineers and technicians essential, step-by-step procedures for solving a wide array of electric power problems. This edition introduces a complete electronic book on CD-ROM with over 100 live calculations--90% of the book's calculations. Updated to reflect the new National Electric Code advances in transformer and motors; and the new system design and operating procedures in the electric utility industry prompted by deregulation.

### **Real Options and Energy Management: Using Options Methodology to Enhance Capital Budgeting Decisions**, Ehud I. Ronn, Risk Books, 2002

A multi-author title that focuses on both the fundamentals of real options, and the very latest practical approaches for their application in the energy industry. Designed to specifically aid valuation and investment decision-making within the energy industry, brings together the leading practitioners, consultants and academics from the energy sector who present the most up-to-date real option approaches and techniques, such as the diagrammatical approach, to help the industry move away from the current climate of uncertainty in the market. It provides brand new case studies and examples of the use of real options in the industry to demonstrate how the latest techniques can be applied to power generation, fuel supply and demand issues, and strategic as well as environmental issues in the energy sector. It also includes the fundamentals of real option pricing and modelling, such as option valuation, modelling approaches, and optimisation and emphasises applications of theory to practical situations with worked examples that enable the reader to adopt them in their own projects.

## Web resources

### New Zealand

#### Energy briefings to the incoming minister released

Briefings from the [Ministry of Economic Development](#), the [Electricity Commission](#) and the [Energy Efficiency and Conservation Authority](#) to the new Energy Minister David Parker can be found in these links.

Electricity Commission [Wholesale Market Advisory Group meeting papers](#) (11 November 2005) and [Issues paper HVDC transmission pricing methodology](#) (Consultation closing date: 12 December 2005) is online, as can Transpower's [Appendix K Update - Pricing for Grid Connection Services 2005](#) and [Grid Upgrade Plan 2005](#).

#### [Jurisdiction under Part 4A of the Commerce Act in Respect of Transpower Discussion Document](#)

The Ministry of Economic Development has prepared this discussion paper, on behalf of the Minister of Energy, to canvass the views of interested parties on a proposal to modify the regulatory arrangements for Transpower New Zealand Limited. The proposal is to transfer jurisdiction under Part 4A of the Commerce Act 1986 in respect of Transpower from the Commerce Commission to the Electricity Commission. Part 4A provides a targeted control and information disclosure regime for large electricity lines businesses.

The [New Zealand Energy site](#) has been built by [Futures Thinking Aotearoa](#) (New Zealand Futures Trust) who aim in developing the site "to collect the most credible information available on the emerging energy challenge, and present it to you in the most unbiased way they can".

The Commerce Commission has [published](#) a 'Decision Paper on the Review of the Information Disclosure Regime' and a 'Decision Paper on Valuation of the Regulatory Asset Base' on its

website. The Commission is also issuing two reports; the first is by Tim Fairhill on the 'Impact of International Financial Reporting Standards on the Electricity Information Disclosure Requirements' and is released in conjunction with the Information Disclosure Decision Paper. The second report is by Meyrick and Associates on 'Indexing the Regulatory Asset Base of Electricity Lines Business' and is issued concurrently with the Decision Paper on Valuation of the Regulatory Asset Base.

## International

California Energy Commission [publications](#) are available online and cover a broad range of topics.

[The world's first commercial 1-MW fuel cell plant.](#) The fuel cell, located at the South Treatment Plant in Renton, WA, can consume about 154,000 cubic feet of biogas a day to produce up to 1 MW of electricity. That's enough to power 1,000 households, but it's being used instead to help operate the plant. The fuel cell's electric output will save the Wastewater Treatment Division (WTD) of King County's Department of Natural Resources and Parks about \$400,000 a year—money that otherwise would be spent to buy electricity from the local utility, Puget Sound Energy, a subsidiary of Puget Energy Inc., of Bellevue, WA. Other savings, yet to be determined, will come from waste-heat recovery and reduction of biogas scrubbing costs.

Papers from the [Nordic Bioenergy Conference](#) held in October are available online. Topics include Political Frameworks and policy instruments for boosting bioenergy, Production and utilization of biofuels for heating, Biofuels for transportation, EUBIONET: Efficient trading of biomass fuels and Bioenergy from the forestry and farming sectors.

[ATLAS - Focusing on the future of energy technologies:](#) The ATLAS project is perhaps the most comprehensive survey of new energy technologies carried out in the EU to date. The study gathered information on all the latest energy technologies in each of the three main sectors of energy supply (renewables, heat and power, and oil and gas) and energy demand (industry, buildings and transport). This information covers current and future market status, requirements in terms of research and technological development (RTD), and importance to EU energy policy. The findings provide decision-makers with a comprehensive catalogue of independent, detailed data on state-of-the-art technology and its prospects, which should help to ensure that each technology's potential is maximised.

[Community Development Toolkit,](#) International Council on Mining and Metals (ICMM), the World Bank, and Energy Sector Management Assistance Program (ESMAP). The Community Development Toolkit was published in November 2005, by ICMM, the World Bank and ESMAP. It was developed to support government, industry, and community efforts to realize more sustainable community development around mining and mineral processing operations. It has two parts:

1. Tools intended for use throughout the project cycle and which cover the assessment, planning, management, and evaluation phases of community development as well as stakeholder relationships.
2. The Background volume, which contains the background and context to the project as well as an examination of the mineral policies and mining laws necessary for mineral activity to contribute to sustainable development.

Reports from the University of Waterloo in Canada on profiling green consumers and how to involve the public in energy efficiency projects can be found online at the following links: [Consumers and Green Electricity: Profiling Potential Purchases](#), [Consumer Perceptions of 'Green Power'](#) and [Taking Residential Energy Efficiency to the Streets: What Gets the Public Involved?](#)

The EU system for CO2 emission allowance trading has been in operation since early 2005. These allowances are allocated freely to producers of electricity. A new [study](#) of the Energy Research Centre of the Netherlands ECN shows that electricity producers in four European countries (Germany, Belgium, France and the Netherlands) pass through these allowances to their costs, resulting in higher energy bills for large and small consumers.

The [Sydney Demand Management and Planning Project](#) investigates and identifies ways of reducing the peak demand for electricity in the inner Sydney region. Peak demand is the main driver for the need to build new electricity infrastructure, even though it generally only occurs for a relatively short time during extreme weather conditions such as on very hot days in summer or very cold days in winter. There's lots of really good information on this site.

## Food for thought

[Bigger than nuclear](#) Decentralised power generation is enjoying impressive progress in the global market despite the many obstacles still in its way. But that progress is often underestimated. Amory Lovins and his Rocky Mountain Institute colleagues Kenneth Davies and Nathan Glasgow present an analysis of the growth of decentralised energy and suggest why its development is outperforming that of centralised plant, including nuclear technology.

Inject your career with more passion through these [six steps](#) by Curt Rosengren. Simply put, it's the energy you get by bringing more of you into what you do.