

## Energy Library Update

Feb 2007

If you would like any of the resources listed please email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) quoting the title of the item or its reference code. Charging depends on the agreement your organisation has with us. Note that most Update items are issued for 2 weeks.

### Contents

[Featured Energy Library journal](#)

[New Books and Standards](#)

[Special Journal Issues](#)

[Reports](#)

[Journal Articles](#)

[Featured Topic](#)

[Energy on the Web](#)

[Oldies and Goodies from the Energy library Collection](#)

[Food for Thought](#)

## Featured Energy Library Journal

### CoalTrans International

Stay up to date with international news and developments in the coal industry. This publication also has a useful [website](#) and a free [email newsletter](#).

(To go on our circulation list for the printed version email [kmcara@energylibrary.org.nz](mailto:kmcara@energylibrary.org.nz) )

## New Books and Standards

### **An inconvenient truth: the planetary emergency of global warming and what we can do about it.** (2006) Al Gore. London: Bloomsbury

The increasing awareness of global warming and its effect on our planet and the future of man has become one of the great crusades of our age. This book is designed for a wide readership; there are many photographs and the facts come in easily digested sections.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) **Ref: 02Gore**)

### **The ten faces of innovation: Strategies for heightening creativity.** (2006) Kelley, Tom; Littman, Jonathan. London: Profile Books Ltd.

Using examples that have already worked in the real world, this author looks at different types of personality and how they can be encouraged in the business world. An example is the Cross Pollinator: a person or firm who shares their insights and ideas. This is an easily-read book by an author who has built a company using these principles.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) **Ref: 02Kelley**)

**How to talk so people Listen: Connecting in today's workplace** (2006) Hamlin, Sonya. New York: Collins

This book contains helpful techniques for everything from negotiating the generation gap to integrating a multicultural workforce. Written in an informal, easily readable style, this 2006 edition has been updated to include Hamlin's advice on dealing with communication challenges in today's fast-paced, technologically driven workplace.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: 02Hamlin)

**The rough guide to climate change.** (2006) Henson, Robert. London: Rough Guides. This is in the category of popular work on climate change. The subject is explored in easily-read "bites", and there are many photographs and charts.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: 02Henson)

**Hard facts, dangerous half-truths, and total nonsense: Profiting from evidence-based management.** (2006) Jeffrey Pfeffer. Boston: Harvard Business School Press.

Organizations frequently do not look closely enough at their management practices, and instead of making worthwhile change, often merely repeat the mistakes of other firms and organizations. This book aims to help management scrutinize what they do, and review intended change, so that real and worthwhile progress is made.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: 02Pfeffer)

**AS/NZS 1768: 2007 Lightning protection.**

Sets out guidelines for the protection of persons and property from the hazards of lightning. Applies to conventional lightning protection systems consisting of air terminations, down conductors, earthing systems and surge protect devices. Provides a comprehensive risk assessment process for the determination of risk due to lightning for a range of structures.

(To borrow this standard email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: 02-1768)

**AS/NZS 3580.10.1: 2003 Methods for sampling and analysis of ambient air - Determination of particulate matter - Deposited matter - Gravimetric method.**

Sets out a method for sampling particulate matter that is deposited from the atmosphere, and procedures for the gravimetric determination of the mass deposition rate of insoluble solids, ash, combustible matter, soluble solids and total solids from ambient air.

(To borrow this standard email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: 02-3580)

## Special Journal Issues

**Environmental Finance (Supplement, October 2006) "Carbon Finance Asia 2006"**

36 pages of articles including:

- Asia-Pacific partnership: Climate policy or climate ploy?
- Kyoto Protocol: Continuity matters
- Methane capture: From mines to market

(To borrow this whole supplement email [kmcara@energylibrary.org.nz](mailto:kmcara@energylibrary.org.nz) Ref: 02Carbon)

## **Energy World (Supplement, September 2006) "Future Fuels"**

17 pages of articles including:

- Biofuels – a booming industry worldwide
- Ethanol blending
- Green future for public transport

(To borrow this whole supplement email [kmcara@energylibrary.org.nz](mailto:kmcara@energylibrary.org.nz) Ref: **02Fuels**)

## **Building Services Journal (Feb 2000)**

This issue focuses on energy conservation measures. Article topics include:

- Building energy assessment procedures
- Photo-voltaic cells
- Energy efficiency in speculative development

(To borrow this whole special issue email [kmcara@energylibrary.org.nz](mailto:kmcara@energylibrary.org.nz) Ref: **02Building**)

## **Reports**

### **International Trends in Small Scale Renewable Generation (correction)**

In the January Energy Library Update we publicised this report. Unfortunately our hyperlink led to the power point presentation, not the report itself. The full report is available on the [East Harbour Management Services](#) website.

**Management and organizational strategies of utility companies: experiences and lessons in foreign utility companies.** (2006) Masayuki Yajima and others. Tokyo: Central Research Institute of Electric Power Industry.

This report investigates the management and organisational strategies of utilities in response to electricity industry reform. Mainly focuses on European case studies.

(To borrow this report email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02CRIEPI**)

**[Draft] New Zealand Energy Efficiency and Conservation Strategy: making it happen** (2006) Energy Efficiency and Conservation Authority. Wellington: EECA

This document sets out the government's action plan towards providing a sustainable energy future.

(This report is [online](#) or you can [borrow](#) our print copy Ref: **02EECA**)

## **Journal Articles**

### **Marketing / Business Management / Project Management**

**Off-Ramp--or Dead End?** Esarey, Sharman and others. *Harvard Business Review*; Feb 2007, Vol. 85 Issue 2, p57-69

This article is a fictional case study about a woman who is juggling a high-powered career with the needs of her family. Four commentators offer expert advice.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Esarey**)

**Why you're failing to engage customers.** Rieger, Tom and Kamins, Craig  
*Gallup Management Journal Online*; 12/14/2006, p1, 9p  
Could it be fear or lack of information? Request this article to find out.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Rieger**)

**Achieving marketing objectives through social sponsorships.** Simmons, Carolyn J. and Becker-Olsen, Karen L. *Journal of Marketing*; Oct 2006, Vol. 70 Issue 4, p154-169.  
Previous literature on corporate social responsibility has failed to demonstrate the influence of social sponsorships when it comes to highlighting a company's point of difference and a brand's positioning. The authors explain the importance of selecting an appropriate sponsored cause but also show that negative effects of a less appropriate fit can be moderated with intelligent communications decisions.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Simmons**)

**Reputation and its risks.** Eccles, Robert G. and others. *Harvard Business Review*; Feb 2007, Vol. 85 Issue 2, p104-114.  
Regulators, industry groups, consultants, and individual companies have developed elaborate guidelines over the years for assessing and managing risks in a wide range of areas, from commodity prices to natural disasters. Yet they have all but ignored reputational risk, mostly because they aren't sure how to define or measure it. That's a big problem, say the authors. Because so much market value comes from hard-to-assess intangible assets like brand equity and intellectual capital, organizations are especially vulnerable to anything that damages their reputations. The process outlined in this article will help managers do a better job of assessing existing and potential threats to their companies' reputations and deciding whether to accept a particular risk or take actions to avoid or mitigate it.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Eccles**)

**How Managers' Everyday Decisions Create or Destroy Your Company's Strategy.** Bower, Joseph L; Gilbert, Clark G. *Harvard Business Review*; Feb 2007 Vol. 85 (2) p72-79  
Senior executives have long been frustrated by the disconnection between the plans and strategies they devise and the actual behavior of the managers throughout the company. This article approaches the problem from the ground up, recognizing that every time a manager allocates resources, that decision moves the company either into or out of alignment with its announced strategy.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Bower**)

**Coordination mechanisms for construction supply chain management in the Internet environment.** Xiaolong Xue and others. *International Journal of Project Management*, Volume 25, Issue 2, February 2007, p.150-157  
The construction industry in general is characterized with high fragmentation, low productivity, cost and time overruns, and conflicts compared with other manufacturing industries. Supply chain management as an innovative management mode provides a new solution for resolving these problems from systems perspective. Coordination is the core issue to improve construction performance in construction supply chain (CSC). This paper presents two types of Internet-enabled coordination mechanisms.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Xue**)

**Individual reactions to leadership succession in workgroups.** Gary Ballinger and David Schoorman. *Academy of Management Review*; Jan 2007, Vol. 32 (1) p118-136  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **01Ballinger**)

## Energy

**Energizing efficiency's potential.** Kuhn, T.R. *Electricity Journal*, 19 (8) 2006, p.83-87  
Advances such as "smart" meters, two-way communication, and automation technology are rapidly improving information exchange between utilities and their customers, and enabling further energy efficiency gains.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Kuhn**)

**Assessing reliability in energy supply systems.** Ryan W. McCarthy and others. *Energy Policy*, Volume 35, Issue 4, April 2007, Pages 2151-2162.  
This paper introduces a method to assess reliability in energy supply systems in terms of adequacy and security. The method presented here is flexible and can be applied to any energy system. To illustrate its use, the method is applied to two hydrogen pathways: (1) centralized steam reforming of imported liquefied natural gas with pipeline distribution of hydrogen, and (2) on-site electrolysis of water using renewable electricity produced independently from the electricity grid.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02McCarthy**)

**Fuel Cells: Promising devices for distributed generation.** M. Hashem Nehrir and others. *IEEE Power & Energy*; Jan /Feb 2006 Vol 4 (1) p.47-53  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **01Nehrir**)

**Optimal pricing of default customers in electrical distribution systems: Effect behavior performance of demand response models.** J.M. Yusta and others. *Electric Power Systems Research*, Volume 77 (5-6), Apr 2007, p.548-558  
The response of a non-linear mathematical model is analyzed for the calculation of the optimal prices for electricity assuming default customers under different scenarios and using five different mathematical functions for the consumer response: linear, hyperbolic, potential, logarithmic and exponential.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Yusta**)

**Measuring national carbon dioxide emissions from tourism as a key step towards achieving sustainable tourism.** Becken, Susanne and Patterson, Murray. *Journal of Sustainable Tourism*; 2006, Vol. 14 (4), p323-338  
The use of fossil fuels in tourism leads to the emission of greenhouse gases, mainly carbon dioxide. No country records levels of energy consumption or emissions specifically resulting from tourism. In this paper New Zealand is used as a case study to test two approaches for accounting for carbon dioxide emissions from tourism.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Becken**)

**Transition to ULSD, ethanol goes smoothly for US refiners.** Scott Sayles.  
*Oil & Gas Journal*. Dec 4, 2006. Vol. 104, Iss. 45, p. 44-52  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Sayles**)

**Electric supply options in a world driven by co2 emission policies.** Tobey Winters.  
*The Electricity Journal* Volume 20 (1), January-February 2007: p.73-81.  
Portfolio analysis borrowed from finance illustrates investors' need to reduce the uncertainty of nuclear, coal and wind technologies. To manage these risks, the article proposes a new deal between government and the private sector that bridges the gap between investment realities and CO2 emission reduction goals.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Winters**)

**Planting trees to mitigate climate change: contested discourses of ecological modernization, green governmentality and civic environmentalism.** Bäckstrand, Karin; Lövbrand, Eva. *Global Environmental Politics*; Feb 2006, Vol. 6 Issue 1, p50-75  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Backstrand**)

**Simulating price patterns for tradable green certificates to promote electricity generation from wind.** Andrew Ford and others. *Energy Policy* Volume 35, Issue 1 (January 2007) p.91-111  
This article uses computer simulation to anticipate the price dynamics in a market for Tradable Green Certificates. These markets have been used in Europe to promote generation of electricity from renewable resources like wind. Similar markets have been proposed in the United States of America (USA) where the certificates are called Renewable Energy Credits.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Ford**)

**A review of the Stern Review.** Tol, Richard S. J.; Yohe, Gary W..  
*World Economics*, Oct-Dec2006, Vol. 7 Issue 4, p233-250  
A somewhat critical scrutiny of the "Stern Review on the Economics of Climate Change".  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Tol**)

**The consequences of cobenefits for the efficient design of carbon sequestration programs.** Hongli Feng; Kling, Catherine L. *Canadian Journal of Agricultural Economics*; Dec 2005, Vol. 53 Issue 4, p461-476.  
This paper looks at the social value of private carbon markets that include trading in agricultural soil carbon sequestration when there are considerable cobenefits associated with the processes that sequester carbon. Government run conservation programs are also examined, as well as the potential issues arising from the interplay between these and a private carbon market. Empirical analyses are included and demonstrate the challenges of resolving these issues through policy design.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Feng**)

**Combining hydro-generation and wind energy: Biddings and operation on electricity spot markets.** Jorge Márquez Angarita and Julio Garcia Usaola. *Electric Power Systems Research*, Volume 77 (5-6), April 2007, p.393-400

The power produced by wind generation is difficult to predict and the predictions are not very accurate. In most systems these imbalances are costly to the wind generation company. A solution would be to work together with another agent. In this paper, a combined strategy for bidding and operating in a power exchange is presented. It considers the combination of a wind generation company and a hydro-generation company. The mathematical formulation for the optimal bids and for the optimal operation is presented, as well as results from realistic cases.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Angarita**)

**Better utilization of drilling and blasting resources to increase mining profitability.** P R Pereira. *Mining Engineering*. Dec 2006. Vol. 58 (12) p.49-52

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Pereira**)

**The Energy Project: Independence by 2020.** Bisk, Tsvi. *Futurist*; Jan/Feb 2007, Vol. 41 Issue 1, p25-34

The author explains that we need to be committed to reducing our dependence on oil as fuel. Coherent energy policy would improve both international stability and the outlook for the environment. All industrialized nations need to move towards next-generation fuels and vehicles.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Bisk**)

**Evaluation of fly ash from co-combustion of coal and petroleum coke for use in concrete.** Allan N. Scott and Michael D A Thomas. *ACI Materials Journal*. Jan/Feb 2007. Vol. 104, (1) p.62-69

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Scott**)

**Uncertainty for data with non-detects: air toxic emissions from combustion.** Zhao, Yuchao; Frey, H. Christopher. *Human & Ecological Risk Assessment*; Dec 2006, Vol. 12 Issue 6, p1171-1191

According to the authors of this paper, the Maximum likelihood estimation (MLE)/bootstrap method is less biased than conventional methods. Here it is applied to 16 cases of censored air toxic emission factors, including benzene, formaldehyde, benzo(a)pyrene, mercury, arsenic, cadmium, total chromium, chromium VI and lead from coal, fuel oil, and/or wood waste external combustion sources.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Zhao**)

**Green electricity market development: Lessons from Europe and the US.**

Lin Gan and others. *Energy Policy* Volume 35, Issue 1 (January 2007) p.144-155

Compares the development and implementation of green electricity policies in Germany, the Netherlands, Sweden, and the United States, a set of countries applying a range of policy instruments to encourage electricity from renewable energy sources.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Gan**)

**Risk management and the role of spot price predictions in the Australian retail electricity market.** Stevenson, Maxwell J. and others. *Studies in Nonlinear Dynamics & Econometrics*; Sep 2006, Vol. 10 Issue 3, p1-23  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Stevenson**)

**Modeling market power in electricity markets: is the devil only in the details?** Guillermo Bautista and others. *The Electricity Journal* Volume 20, Issue 1, (January-February 2007) Pages 82-92.  
Basic approximations of the transmission system are ubiquitous in the literature on modeling competition in electricity markets. Because the main concern of market power is with active power, reactive power and voltage-related issues are commonly neglected. The usefulness of stylized formulations that do not comprise these system elements may be severely limited.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Bautista**)

**Increased energy efficiency and the rebound effect: Effects on consumption and emissions.** Runar Brännlund and others. *Energy Economics*, Volume 29 (1), January 2007, p1-17  
The main objective of this paper is to examine how exogenous technological progress, in terms of an increase in energy efficiency, affects consumption choice by Swedish households and thereby emissions of carbon dioxide (CO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>).  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Brannlund**)

**Fermentative hydrogen production from wastewater and solid wastes by mixed cultures.** Li, Chenlin; Fang, Herbert H. P. *Critical Reviews in Environmental Science & Technology*; Jan 2007, Vol. 37 Issue 1, p1-39  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Li**)

**Strategy for analyzing the financial impacts of sustainable design options for LEED.** Haxton, Bruce and others. *Environmental Design & Construction*; Dec 2006, Vol. 9 Issue 11, p44-50  
Examines the comparative costs of using sustainable building design options for the Leadership in Energy and Environmental Design (LEED). A cost analysis of a sample project is included.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Haxton**)

**Creative renewable energy purchasing options for businesses.** Elizabeth Lokey. *The Electricity Journal*, Volume 20 (1), January-February 2007, p.63-72  
Green energy providers are creating novel ways for large commercial clients to get involved in the long-term development of renewable energy generation. Some plans are designed to allow the purchase of energy to provide long-term off-take stability and other financial benefits to companies developing renewable energy projects. Two new insurance products could help absorb some of the financial risk taken on by the clients.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Lokey**)

**Using the market at a cost: How the introduction of green certificates in Sweden led to market inefficiencies.** Mats Nilsson and Thomas Sundqvist

*Utilities Policy*, Volume 15 (1), March 2007, p49-59

Examines the transactions costs in the Swedish electricity retail market arising as a result of the implementation of a green certificate system.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Nilsson**)

**Expectations and the evolving world gas market.** Brito, Dagobert L.; Hartley, Peter R. *Energy Journal*, 2007, Vol. 28 Issue 1, p1-24

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Brito**)

**Biofuels for transport in Europe: Lessons from Germany and the UK.** Christian Bomb and others. *Energy Policy*, Volume 35 (4), April 2007, p.2256-2267

The utilisation of biofuels is attracting growing support from the European Union and member states as a strategy to tackle climate change, enhance energy security, and contribute to regional development. This paper describes, compares, and analyses the markets for biofuels in Germany and the UK.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Bomb**)

**Biofuels for transport - not quite so easy: What are the prospects for biofuel use in the transport sector?** Ralph Sims. In *Renewable Energy 2006* (p.112-115, 118).

London: Sovereign.

Written by a New Zealand author (Ralph Sims is the Professor of Sustainable Energy at Massey University), this article outlines the current position of biofuels and the challenges that need to be overcome to ensure that they reach their future potential.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Sims**)

**The omnivorous engine: Brazilian fuel control system lets cars run on gasoline, ethanol and natural gas.** Eric Guizzo. *IEEE Spectrum* January 2007

p.30-33

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Guizzo**)

**Achieving 60% CO2 reductions within the UK energy system--Implications for the electricity generation sector.** M. Odenberger and F. Johnsson. *Energy Policy*, Volume 35 (4), April 2007, p.2433-2452

Explores how investment in the UK electricity generation sector can contribute to the UK goal of reducing CO2 emissions with 60% by the year 2050 relative to the 1990 emissions. Considering likely development of the transportation sector and industry over the period the analysis shows that this implies CO2 emission reductions of up to 90% by 2050 for the electricity sector.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Odenberger**)

**Power quality and voltage stability of distribution system with distributed energy resources.** Vu Van Thong and others. *International Journal of Distributed Energy Resources* Vol 1 (3) 2005 p227-240  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Thong**)

**Energy management with building automation.** Roberto Gonzalez. *ASHRAE Journal* Jan 2007. Vol. 49 (1); p.26 (6 pages)  
Building automation systems (BAS) are critical for energy management. As energy costs rise, the importance of retrofitting buildings for energy management is becoming more obvious. This paper outlines some of the decisions that need to be made about a BAS to manage energy in HVAC facilities to keep financial and environmental costs down.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Gonzalez**)

**CDM potential of solar energy technologies in India.** Pallav Purohit and Axel Michaelowa. In *Renewable Energy 2006* (p82-88). London: Sovereign.  
This article discusses the impact of the Kyoto Protocol's Clean Development Mechanism on solar energy technologies in India.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Purohit**)

**Using heat pipe heat exchangers for reducing energy consumption of treating ventilation air in an operating theatre in a tropical climate: a simplified model.** Yau, Y. H. *Building Services Engineering Research & Technology*; Dec 2006, Vol. 27 Issue 4, p297-310.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Yau**)

## Featured Topic

### Energy Efficient Lighting: samplings from our collection.

**Lighting in the Solid State. (cover story)** Janeway, Patricia A. *American Ceramic Society Bulletin*; May 2006, Vol. 85 Issue 5, p17-20, 4p  
Energy efficient light emitting diodes are used in solid-state lighting. Solid-state lighting has the potential to outshine the energy efficiencies of other forms of lighting.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Janeway**)

**The voltage distortion in low-voltage networks caused by compact fluorescent lamps with electronic gear.** Zoran Radakovic and others  
*Electric Power Systems Research*, Volume 73 (2), February 2005, p.129-136  
Commonly used compact fluorescent lamps (CFLs) with electronic gear are characterized by extremely distorted current, with total harmonic distortion (THD) usually exceeding 100%. That is why they cause a significant voltage distortion in electrical installations. The goal of this research was to determine their maximum permissible share in the total load installed for commercial customers, at which voltage distortion is still acceptable.  
(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Radakovic**)

**Disseminating energy-efficient technologies: a case study of compact fluorescent lamps (CFLs) in India.** Arun Kumar and others. *Energy Policy*, Volume 31, Issue 3, February 2003, Pages 259-272

Disseminating energy-efficient technologies, even when they may appear to be technically perfect, is always a tough task, more so in economies with low purchasing power and educational levels. The compact fluorescent lamp (CFL) has the potential of reducing peak electric power loads very significantly. However, in India, the CFL sales are still not growing in the expected manner. This study investigates the reasons for this and determines the best ways in which an efficient technology like this could be popularized.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Kumar**)

**Drivers of market transformation: analysis of the Hungarian lighting success story.** Diana Ürge-Vorsatz and Jochen Hauff. *Energy Policy*, Volume 29, Issue 10, August 2001, Pages 801-810

Hungary has recently experienced one of the most remarkable market successes in a key energy-efficiency technology: compact fluorescent lighting.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Vorsatz**)

**Predicting lighting energy use under daylight linked lighting controls.**

Littlefair, Paul J. *Building Research & Information*; July 1998, Vol. 26 (4), p208-222

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Littlefair**)

**Energy-efficient lighting programs: Experience and lessons from eight countries.** Eric Martinot and Nils Borg. *Energy Policy*, Volume 26, Issue 14, December 1998, Pages 1071-1081

Analyzes ten case studies of energy-efficient lighting programs in eight countries - Poland, Thailand, Mexico, Jamaica, Peru, Brazil, Denmark and the United Kingdom - to compare the lessons and experience related to program approaches, technology diffusion and market transformation impacts, cost effectiveness of greenhouse-gas reductions, and economic benefits. Focuses mainly on compact fluorescent lamps for residential use.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Martinot**)

**The Stockholm lighting programme.** Brita Olerup. *Utilities Policy*, Volume 4, Issue 4, October 1994, Pages 273-284

In 1988 Stockholm Energi introduced the first utility-sponsored campaign promoting an energy-efficient technology in Sweden. Integral compact fluorescent lamps were selected as convenient symbolic items. Since then six residential and six non-residential lighting campaigns have been launched in Stockholm. Promoting an environmentally benign strategy gave Stockholm Energi a favourable image. Advertising was gradually preferred to rebates although comparable in cost but not in conservation impact. The programme had repercussions both inside Stockholm Energi and outside, as other utilities followed its example. In 1993 the lighting trade had to take back the entire initiative.

(For a copy of this article email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Olerup**)

**Fact sheet: Mercury in compact fluorescent lamps (CFLs).**

This [fact sheet](#) was prepared by the U.S. Environmental Protection Agency.

## And if you want more on a special topic.....

Ask about subscribing to our **Customized Topic Updates** which give regular samplings from the web, our collection and other sources on topics of your choice.  
(To request details about subscribing to our Customized Topic Updates email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) and quote **Ref: Topic**)

## Energy on the Web

### International

- **Transforming the power sector : David Parker** ([speech](#))
- **Meridian has certified carbon neutral electricity** ([article](#))
- **Call to partially list big SOEs** ([article](#))
- **Genesis flicks the switch on e3p** ([article](#))
- **NZ CRIs join forces with leading US enzyme discovery company to develop NZ biofuels industry** ([article](#))
- **Sustainable land management and climate change** (MAF [discussion document](#))
- **The need for new electricity generation: The role of demand** ([paper](#) presented at the Sustainable Energy Federation and Energy Federation of New Zealand joint one-day Seminar on Government Energy Policy)

### New Zealand

- **Authoritative Report on Climate Change Released** ([article](#))
- **Climate Change 2007: The Physical Science Basis: Summary for Policymakers** Intergovernmental Panel on Climate Change. ([Pdf](#))
- **energy [r]evolution - A sustainable World Energy Outlook** (by EREC)  
Half the world's energy needs could be met by renewables by 2050 ([report](#))
- **A rough guide to individual carbon trading: the ideas, the issues and the next steps** ([report](#))
- **Marine energy: UK at forefront of global developments** ([article](#))
- **Jinping 2 hydropower station construction begins in China** ([article](#))
- **Colorado tries to bury carbon problem** ([article](#))
- **International Energy: International Forums Contribute to Energy Cooperation within Constraints: GAO-07-170** ([report](#))
- **England plans "greenest Olympic Games" with renewables** ([article](#))

## Oldies and Goodies from the Energy Library Collection

**Large dams in Chile.** (1996) Santiago: Chilean National Committee on Large Dams.  
If you are keen on dams and dam building, this is a most interesting book that includes some stunning colour photographs.  
(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) **Ref: 02Chile**)

**The geology of New Zealand.** (1978) Suggate, R.P and Te Punga, M.T.  
Wellington: Government Printer.

This 2 volume set is timeless! Many people are interested in the geology of areas they know well- the amazing features of the landscape are seen as even more amazing when one understands a little of the forces that have shaped this country.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Suggate**)

**Conference on CHP 2000: Cogeneration for the 21st century (1998: London)**

Institution of Mechanical Engineers. Bury St Edmunds: Mechanical Engineering Publications

This conference was held in the year after Kyoto, so there was a heightened awareness of the need for environmentally-friendly management of heat and power generation. A wide range of case studies, some international, were described.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02CHP**)

**Hazardous waste site soil remediation: Theory and application of innovative technologies.** (1993) Wilson, David J. and Clarke, Ann N. New York: Marcel Dekker.

This is a detailed examination of many of the technologies used in remediation, such as thermally enhanced vapor stripping, biodegradation, and air sparging; readable for the non specialist as well as the specialist.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **02Wilson**)

## Food for Thought

### Energy anagrams

The letters in "renewable energy source" can be re-arranged to spell: "So, we buy greener, cleaner".

To be in to win a **king-size bar of energy chocolate** [email Kat McAra](mailto:Kat.McAra@energylibrary.org.nz) solve the following: What one word can be made from rearranging the letters in the phrase "canned insect"? (hint: relates to this month's Special Topic)

Draw closes 4pm on Friday 9<sup>th</sup> March.

(Last month's answer was "Segway")

*If you're not currently receiving the monthly Energy Library Update email and would like to, let us know. If you don't wish to receive future updates just let us know by email or phone.*