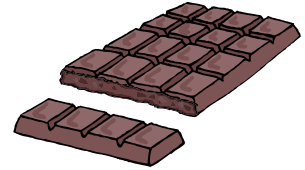


Energy Library Update

August 2007

Energy Library staff enjoyed meeting members at the 9th Annual New Zealand Energy Summit in Wellington recently. Thanks to all who left their business cards in the draw for the Energy Chocolate which has been sent out to the winner. Don't worry if you didn't win because there's another chance at the end of this Update with our monthly draw.



We are able to supply the resources listed in this Update to our members, for which there may be costs depending on your type of membership. If you would like any of the resources just email us quoting the title of the item or its reference code. Note that most Update loan items are issued for 2 weeks.

Non-members can access these articles through their institutional or public library via the interlibrary network. Alternatively, for information on membership please contact us.

Contents

[New Books and Standards](#)

[Reports](#)

[Special Journal Issue](#)

[New Management, Marketing and HR Articles](#)

[New Energy and Environment Articles](#)

[Featured Topic](#)

[Oldies and Goodies from the Energy Library collection](#)

[Energy on the Web](#)

[Energy Chocolate Competition](#)

New Books and Standards

Confronting climate change: Critical issues for New Zealand. (2006) Ralph Chapman, Jonathan Boston and Margot Schwass (Eds). Wellington: Victoria University Press.

With contributions from more than 30 leading scientists and policy experts from New Zealand and beyond, this book examines the impact climate change is likely to have on our country and the Pacific, and outlines a range of policy solutions. It is based on information presented at a major Climate Change and Governance Conference in 2006.

(To borrow this book email library@energylibrary.org.nz Ref: **08Chapman**)

Distributed small-scale wind in New Zealand: Advantages, barriers and policy support instruments. (2007) Martin Barry. Wellington: Victoria University of Wellington

This thesis looks at why New Zealand's wind energy industry is growing at a slower rate than the OECD average, in spite of there being many preconditions in its favour, such as having one of the best wind resources in the world.

(To borrow this thesis email library@energylibrary.org.nz Ref: **08Barry**)

ISO 14065: 2007. Greenhouse gases. Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.

(To borrow this standard email library@energylibrary.org.nz Ref: **08-14065**)

Reports

New Zealand energy greenhouse gas emissions 1990 – 2006. (2007) Wellington: Ministry of Economic Development.

(This report is available [online](#) or you can [borrow](#) our copy Ref: **08MED**)

Special Journal Issue

Dams and Hydropower in Spain (The International Journal on Hydropower & Dams Vol. 13 No. 3, 2006)

This issue contains 9 articles on various aspects of hydropower and dams in Spain.

(To borrow this whole issue email library@energylibrary.org.nz Ref: **08Dams**)

New Management, Marketing and HR Articles

Maximizing your return on people. Bassi, Laurie and McMurrer, Daniel. *Harvard Business Review*; Mar 2007, Vol. 85 Issue 3, p115-123

Though most traditional HR performance metrics don't predict organizational performance, alternatives simply have not existed -- until now. During the past ten years, researchers Laurie Bassi and Daniel McMurrer have worked to develop a system that allows executives to assess human capital management (HCM) and to use those metrics both to predict organizational performance and to guide organizations' investments in people.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Bassi**)

Immigrant diversity and communication practices in the New Zealand business sector. By: Cruickshank, Prue. *Business Communication Quarterly*; Mar 2007, Vol. 70 Issue 1, p87-92

(For a copy of this article email library@energylibrary.org.nz Ref: **08Prue**)

Contractor pre-qualification model: State-of-the-art. Nabil El-Sawalhi and others. *International Journal of Project Management*; Volume 25, Issue 5, (July 2007) p.465-474

Contractor pre-qualification is characterized as a multi-criteria problem with uncertain inputs. The criteria used for contractor pre-qualification include qualitative and quantitative information. Owing to the nature of pre-qualification which depends on subjective judgements of construction professionals; it becomes an art rather than a science...

(For a copy of this article email library@energylibrary.org.nz Ref: **08Nabil**)

Balancing employee needs, project requirements and organisational priorities in team deployment. Raidén, Ani Birgit and others. *Construction Management & Economics*; Aug 2006, Vol. 24 Issue 8, p883-895
(For a copy of this article email library@energylibrary.org.nz Ref: **08Ani**)

Corporate life and the imagination: The place of unconscious processes in the world of business. Russell, David B. *TAMARA: Journal of Critical Postmodern Organization Science*; 2007, Vol. 6 Issue 1/2, p58-64
(For a copy of this article email library@energylibrary.org.nz Ref: **08Russell**)

Saving the world with cause-related marketing. Chiagouris, Larry and Ray, Ipshita. *Marketing Management*; Jul/Aug 2007, Vol. 16 Issue 4, p48-51
(For a copy of this article email library@energylibrary.org.nz Ref: **08Larry**)

New Energy and Environment Articles

It's all hot air – Carbon and climate change. Catherine Hutton. *Consumer*; August 2007 No. 472. p.8-11
This article explains where New Zealand's greenhouse emissions come from and outlines practical ways that consumers can reduce their personal carbon footprint.
(For a copy of this article email library@energylibrary.org.nz Ref: **08Hutton**)

Blowing in the wind. White, Mike. *North & South*; Aug 2007 Issue 257, p70-79
Geoff Henderson is an engineer and the Chief Executive of New Zealand company Windflow Technology. This article describes his background and the challenges he faced bringing his two-blade turbine to the market. Now, finally things are looking up.
(For a copy of this article email library@energylibrary.org.nz Ref: **08White**)

Top of the class energy savings through the Atkins Schools' Energy Project. Wendy Cheeseman. *Energy World*; Issue 349, May 2007 p.18-19
The Atkins Schools' Energy Project has helped schools throughout Oxfordshire to cut their energy consumption by 10-34%. Project staff work closely with pupils, teachers and other school stakeholders rather than just sending the school another "resource pack".
(For a copy of this article email library@energylibrary.org.nz Ref: **08Wendy**)

A road map for natural capitalism. Lovins, Amory and others. *Harvard Business Review*; Jul/Aug 2007, Vol. 85 Issue 7/8, p172-183
No one would run a business without accounting for its capital outlays. Yet in 1999, when this article was originally published, most companies overlooked one major capital component--the value of the earth's ecosystem services. It was a staggering omission: Calculations at that time placed the value of those services--water storage, atmosphere regulation, climate control, and others--at \$33 trillion per year. Because natural capitalism is both necessary and profitable, it will subsume traditional industrialism, the authors argue.
(For a copy of this article email library@energylibrary.org.nz Ref: **08Lovins**)

Diversity of generation technologies: Implications for decision-making and public policy. Ken Costello. *The Electricity Journal*; Vol 20(5) (June 2007) p.10-21

The ideal state of "optimal diversity" remains elusive for various reasons. One major difficulty centers on identifying the socially preferred outcome when deviations from this state involve making tradeoffs amid conflicting objectives. Adding to the complexity in decision-making, much of the information, especially relating to risks and the relative importance of generation planning objectives, is non-quantifiable.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Costello**)

The smart revolution. Catherine Lacoursière. *Energy Risk*; Vol. 4 (8) June 2007 p.20-23

Challenges and risks for smart grids are discussed. The author underlines the necessity of offering customers risk differentiated pricing if smart grids are to fulfil their potential.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Catherine**)

Why gas prices are soaring. Robison, Jennifer. *Gallup Management Journal Online*; 7/12/2007, p1-6

This interview with Gallup Chief Economist Dennis Jacobs reveals the factors leading to rising gas prices as well as the resulting effect on the U.S. economy.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Jennifer**)

Revolutionize value management: A mode towards sustainability. Nazirah Zainul Abidin and Christine L. Pasquire. *International Journal of Project Management*; Volume 25, Issue 3, (April 2007) p.275-282

As one of the well-known techniques conducted to assist in decision-making, value management holds a strategic position to incorporate sustainability issues into construction projects.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Abidin**)

Environmental and economic evaluation of bioenergy in Ontario, Canada.

Yimin Zhang and others. *Journal of the Air & Waste Management Association*; Aug 2007. Vol. 57, Iss. 8, p.919-933

Two methods for converting cellulosic biomass to energy are compared in this study. The first is the generation of electricity from cofiring biomass in existing coal power plants and the second is the production of ethanol from biomass in stand-alone facilities.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Zhang**)

Wood residue utilization in Pennsylvania: 1988 vs. 2003. Murphy, Jamie A. and others. *Forest Products Journal*; Apr 2007, Vol. 57 Issue 4, p101-106

(For a copy of this article email library@energylibrary.org.nz Ref: **08Murphy**)

Managing deconstruction projects for sustainability. Shami, Manar. *AACE International Transactions*; 2007, p14.1-14.7, 7p

This article discusses trends and new technologies in the management of solid waste from the deconstruction industry.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Shami**)

Wetland cultural heritage in the Pacific. Tolentino Jr., Amado S. *International Review for Environmental Strategies*; 2007, Vol. 7 Issue 1, p155-161, 7p
(For a copy of this article email library@energylibrary.org.nz Ref: **08Amado**)

Methods for addressing climate change uncertainties in project environmental impact assessments. Byer, Philip H. and Yeomans, Julian Scott. *Impact Assessment & Project Appraisal*; Jun 2007, Vol. 25 Issue 2, p85-99

The authors use the example of a run-of-the-river hydroelectric project in Ontario to illustrate how their approach could help proponents of environmental assessments.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Byer**)

Investment in distributed energy generation: a present-value model of different technologies. Järvinen, Tuukka and Laitinen, Erkki K. *Investment Management & Financial Innovations*; 2007, Vol. 4 Issue 2, p48-59

(For a copy of this article email library@energylibrary.org.nz Ref: **08Erkki**)

Impact of the position of the radiators on energy consumption and thermal comfort in a mixed radiant and convective heating system. Xiangyang Gong and David E. Claridge. *ASHRAE Transactions*; 2007. Vol. 113, Part 1 p.494-503

(For a copy of this article email library@energylibrary.org.nz Ref: **08Gong**)

What is the limit of Chinese coal supplies-A STELLA model of Hubbert Peak. Tao, Z., Li, M. *Energy Policy*; 35 (6) 2007, p 3145-3154

American geophysicist M. King Hubbert in 1956 first introduced a logistic equation to estimate the peak and lifetime production for oil of USA. This paper proposes to use the generic STELLA model to simulate Hubbert Peak, particularly for the Chinese raw coal production.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Tao**)

Does it matter when a power outage occurs? -- A choice experiment study on the willingness to pay to avoid power outages. Fredrik Carlsson and Peter Martinsson. *Energy Economics*; In Press, Corrected Proof, 4 May 2007

Using a choice experiment survey, the marginal willingness to pay (WTP) among Swedish households for reductions in power outages is estimated.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Carlsson**)

Using GIS to evaluate the impact of exclusion zones on the connection cost of wave energy to the electricity grid. Robert Prest and others. *Energy Policy*; Volume 35, Issue 9, (September 2007), p.4516-4528

As the connection cost of a wave energy development is a driving factor in the development's feasibility, existing wind farm cable-routing techniques used by renewable energy developers may not be satisfactory. A Geographical Information System (GIS) method is presented which optimises the cable route between a wave farm and the electricity network, while taking a range of exclusion zones into account.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Prest**)

Energy hubs for the future. Geidl, M. and others. *IEEE Power and Energy Magazine*; 5 (1) 2007, p. 24-30

This article discusses the initial results from the "vision of future Energy Networks" project, which applies a Greenfield approach to future power systems. Concepts such as the energy hub, which represents a unit or interface between different energy infrastructures and/or loads where multiple energy carriers can be converted, conditioned and stored, are explained.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Hubs**)

Communications technology fundamentals for the design of modern protection and control systems / CIGRE Technical Brochure Summary 315 – WG D2.16. *Electra*; 231 (April 2007) p. 83,85,87,89,91,93,95

This technical brochure analyses the advantages and disadvantages of both the use and impact of available communication technologies, inside and outside the substation, in protection and control systems for a Substations Automation System by means of a cross matrices methodology. The output matrix provides a relative assessment of communications technology performance for lead applications in substations.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Comms**)

Heuristic procedures for transmission planning in competitive electricity markets. Wene Lu and others. *Electric Power Systems Research*; Volume 77, Issue 10, (August 2007) p.1337-1348

The network structure of the power system, in an electricity market under the pool model, may have severe impacts on market performance, reducing market efficiency considerably, especially when producers bid strategically. In this context network re-enforcement plays a major role and proper strategies of transmission planning need to be devised. This paper presents, for pool-model electricity markets, two heuristic procedures to select the most effective subset of lines that would reduce the impacts on the market, from a set of predefined candidate lines and within the allowed budget for network expansion.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Wene**)

An optimal control strategy for power quality enhancement in a competitive environment. A. Griffo and others. *International Journal of Electrical Power & Energy Systems*; Volume 29, Issue 7, (September 2007) p.514-525

The new electric system restructuring requires more and more restrictive power quality requirements to be satisfied. The problem of disturbances compensation therefore becomes of noticeable importance, both in terms of device allocation and control strategy. The paper deals with active compensators, whose utilization is rapidly growing in modern power system, whereas power electronic devices play a fundamental role in controlling system behavior.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Griffo**)

Evaluating the limits of solar photovoltaics (PV) in electric power systems utilizing energy storage and other enabling technologies. Paul Denholm and Robert M. Margolis. *Energy Policy*; Volume 35, Issue 9, (September 2007) Pages 4424-4433

In this work, we evaluate technologies that will enable solar photovoltaics (PV) to overcome the limits of traditional electric power systems.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Denholm**)

A new approach for GenCos profit based unit commitment in day-ahead competitive electricity markets considering reserve uncertainty. H.Y. Yamin and others.

International Journal of Electrical Power & Energy Systems; Volume 29, Issue 8, (October 2007) p.609-616

This paper presents a new approach for GenCos Profit Based Unit Commitment (GPBUC) in day-ahead competitive electricity markets. Generation, spinning and non-spinning reserves are considered in the proposed formulation.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Yamin**)

Renewable energy credit driven wind power growth for system reliability. Rajesh Karki. *Electric Power Systems Research*; Vol. 77 (7), May 2007 p.797-803

Environmental concerns over electric power generation from conventional sources has led to widespread public support for renewable energy sources. Governments have responded by providing various forms of financial incentives to promote power generation from renewable energy sources. The rapid growth of wind power since the last decade has primarily been driven by governmental subsidies. Long-term growth of wind power should, however, be driven by sustainable market mechanisms.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Karki**)

Market power mitigation in the UK power market. Richard Green. *Utilities Policy*; Volume 14, Issue 2, June 2006, p.76-89

Market power in generation was a significant problem throughout the 1990s, following the privatisation of the electricity industry in England and Wales. The industry's regulators fought this market power. At the end of the decade, the regulator and the government imposed a new set of wholesale market rules, just as the industry reached a competitive market structure, and prices fell.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Green**)

Sustainable development duties: New roles for UK economic regulators. Gill Owen. *Utilities Policy*; Volume 14, Issue 3, September 2006, p.208-217

When the utility regulators were established in the UK their primary duties were focused on economic regulation. The increasing emphasis in government policy on sustainable development has led to pressures on the regulators to pay greater attention to social and environmental concerns. Why and how did this change come about, what impact will it have on how the regulators deal with sustainable development and on the nature of regulation?

(For a copy of this article email library@energylibrary.org.nz Ref: **08Owen**)

Performance improvement and exergy analysis of gas turbine power plant with alternative regenerator and intake air cooling. N. Ravi Kumar and others. *Energy Engineering*; Vol. 104, Iss. 3, 2007. p.36-53 (18 pp.)

(For a copy of this article email library@energylibrary.org.nz Ref: **08Kumar**)

An integrated management approach to designing sustainable buildings. Hassan, Osama A. B. *Journal of Environmental Assessment Policy & Management*; Jun 2006, Vol. 8 Issue 2, p223-251

(For a copy of this article email library@energylibrary.org.nz Ref: **08Hassan**)

Featured Topic

Carbon Taxes and Emissions Trading: Samplings from our collection and the Web.

The role of economic instruments to reduce carbon emission and their implementation: A comparison of environmental policies in New Zealand and Germany. Hoffman, Lars. *New Zealand Journal of Environmental Law*; Volume 10 (2006) p.129-168.

Focuses on carbon emission trade and carbon taxes as the economic instruments to ensure compliance with the Kyoto Protocol.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Hoffman**)

Australasian Emission Trading Forum ([website](#))

Aims to provide information on Australian, NZ and international emissions trading developments and research.

Emissions trading scheme for New Zealand (26 March 2007). Wellington: NZIER.

This report to Business New Zealand is available [online](#).

The missing link. Oliver Holtaway. *Energy Risk*; Volume 4 Issue 6 (April 2007) p.17-20.

The development of emissions trading schemes is happening in several countries. Could the UN's Certified Emissions Reductions become the global carbon dollar?

(For a copy of this article email library@energylibrary.org.nz Ref: **08Link**)

Not waiting for the kick-off - The voluntary carbon market in the U.S. is active. Trevor Curwin. *Environmental Finance*; June 2007, p.16-17.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Curwin**)

Less is more: EU ETS Phase II - Will phase II of the European Union Emissions Trading Scheme deliver greater emission reductions than Phase I? Miles Austin.

Energy Risk; Volume 4 Issue 3 (January 2007) p.14-16.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Austin**)

Emission trading beyond Europe: Linking schemes in a post-Kyoto world. (2006)

Anger, Niels. ZEW Discussion Paper No. 06-058. Mannheim, Centre for European Economic Research. This paper is available [online](#).

Policy-making under uncertainty : commentary upon the European Union Emissions Trading Scheme. Haar, Laura and Haar, Lawrence. *Energy Policy*; Volume 34 Issue 17 (November 2006) p.2615-2629

(November 2006) p.2615-2629

(For a copy of this article email library@energylibrary.org.nz Ref: **08Haar**)

Where are the sky's limit? Lessons from Chicago's cap-and-trade problem. Evans, David A and Kruger, Joseph A. *Environment*, Volume 29 Issue 2 (March 2007) p.18-33
(For a copy of this article email library@energylibrary.org.nz Ref: **08Evans**)

Fundamentals of a successful monitoring, reporting and verification under a cap-and-trade program. Schakenback, John and others. *Journal of the Air and Waste Management Association*; Volume 56 (November 2006) p.1576-1583.

Describes the elements of two successful cap-and-trade programmes which could be applied to others. The structure has resulted in high public confidence in the program, highly accurate and complete data and a high compliance rate.

(For a copy of this article email library@energylibrary.org.nz Ref: **08John**)

Electricity pricing under "carbon emissions trading": A dominant firm with competitive fringe model. Bonacina, Monica and Gulli, Francesco. *Energy Policy*; Volume 35 Issue 8 (August 2007) p. 4200-4220.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Monica**)

Emissions trading, CDM, JI and more: the climate strategy of the EU. Klepper, Germot and Peterson, Sonja. *The Energy Journal*; Volume 27 Issue 2 (2006) p. 1-24.

(For a copy of this article email library@energylibrary.org.nz Ref: **08Klepper**)

BUT WAIT, THERE'S MORE.....The items listed above are a sub-set of a more comprehensive bibliography which also includes articles not held here at Energy Library.
(To request the full list of references please email library@energylibrary.org.nz Ref: **08Biblio**)

Oldies and Goodies from the Energy Library collection

Designing competitive electricity markets. (1998) Chao, Hung-Po and Huntington, Hillard G. Boston, Mass: Kluwer Academic Publishers

(To borrow this book email library@energylibrary.org.nz Ref: **08Huntington**)

River intakes and diversion dams. (1989) Razvan, Ernest. Amsterdam: Elsevier

(To borrow this book email library@energylibrary.org.nz Ref: **08Ernest**)

Energy on the Web

New Zealand

Sustainability and security of electricity – [Speech](#) by David Parker 13th August 2007

Review of Section 62 of the Electricity Act 1992 "Continuance of Supply" (2013 review) - MED [discussion document](#).

Bioprospecting - Harnessing benefits for New Zealand: A policy framework discussion
- MED [discussion document](#).

New Zealand focuses on outage management - Transmission & Distribution World [article](#).

International

Review of electricity and gas system operator role, functions and incentives: Initial thoughts - Ofgem [consultation document](#)

LS9 promises 'renewable petroleum' - [news](#)

Energy customers prepared to pay to help cut carbon emissions - [press release](#)

Ultra high voltage transmission - ABB Review [article](#).

Developing a carpooling and vanpooling option - Mass Transit [article](#).

Meeting the energy challenge: A white paper on energy - DTI (UK) [report](#)

Calculate your farm's carbon footprint - [website](#)

Photosynthesis could be a key to eco-friendly energy - [news](#)

Precautionary approaches to ELF EMFs - SAGE [report](#)

Energy Chocolate Competition

Climate change speak

To be in to win a king-size bar of energy chocolate choose any 3 of the highlighted acronyms in the following paragraph and [email Jackie Park](#) what they stand for:

The **CDM** is the element of the Kyoto Protocol that creates credits. **CERs** can be used for compliance in **EU ETS**. **JI** is an element of the Kyoto Protocol that creates **ERUs**. The two multi state voluntary compacts in the United States are- the **RGGI** and the **WRCAI**.

Draw closes 4pm Friday 14th Sept 2007.

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