

Energy Library Update

July 2009

Welcome to the latest issue of the Energy Update, a monthly round-up of books, articles, standards, reports and other resources available from the Energy Library collection.

This month we feature a special section on microgeneration.

Members can request any resource listed in this newsletter by [emailing](#) us its title or Ref code.

Non-members: You may be able to access items from your institutional or public library via inter-library loan.

Kat McAra, Current Awareness Advisor

Contents

[New Items for Loan](#)

[Special Journal Issues](#)

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

[New Energy and Environment Articles](#)

[Special Topic: Microgeneration](#)

[Energy on the Web](#)

[Fuel for Thought \(Energy chocolate competition\)](#)



New Items for Loan

CO2 capture and storage: A key carbon abatement option. Paris: IEA/OECD, 2008

In an environmentally-conscious world, the predicted increase in carbon dioxide emissions is causing widespread alarm. Technologies that help reduce CO2 emissions are very important; of these, carbon capture and storage appears promising. This book looks at the technologies being developed in the various energy sectors and in industry. It looks at CO2 transport and storage, and also examines financial, legal, regulatory and public acceptance issues. A large part of the book gives CCS regional and country updates.

(To borrow this book email library@energylibrary.org.nz Ref: **0709-Loan1**)

NZS 4218: 2009. Thermal insulation - Housing and small buildings

Specifies thermal insulation requirements for housing and small buildings for users of the Standard (e.g. architects, designers, building consent authorities and window and glass companies).

(To borrow this standard email library@energylibrary.org.nz Ref: **0709-Loan2**)

Driving results through social networks: How top organizations leverage networks for performance and growth. R. Cross and R. Thomas. San Francisco: Jossey-Bass, 2009

The authors show how strategically managing and leveraging social networks can make a big difference to business performance and growth.

(To borrow this book email library@energylibrary.org.nz Ref: **0709-Loan3**)

A sense of urgency. Kotter, John P. Boston, Mass.: Harvard Business Press, 2008

This book reveals how to get employees to embrace your messages about organisational transformation. If you appeal to their hearts they will be less likely to be complacent and more likely to get proactive about change.

(To borrow this book email library@energylibrary.org.nz Ref: **0709-Loan4**)

Keeper of the long view: Sustainability and the PCE. Young, David. Wellington: Parliamentary Commissioner for the Environment, 2007

The author was commissioned to write a history of the Parliamentary Commissioner for the Environment to commemorate the office's twentieth anniversary. He draws on interviews with over 20 prominent interviewees engaged in the business of sustainability and the environment.

(To borrow this book email library@energylibrary.org.nz Ref: **0709-Loan5**)

The evolution of electric power transmission under deregulation: Selected readings.

Casazza, John A. (ed). Loehr, George C. (ed). Piscataway: IEEE, 2000

Papers on transmission systems from a wide variety of publications. Areas covered include: deregulation issues; transmission system planning and design; transmission system operation; transmission transfer capacity; reliability; transmission system components and research.

(To borrow this book email library@energylibrary.org.nz Ref: **0709-Loan6**)

New Zealand Energy Data File 2009

Includes data to the end of 2008. Access this from the MED [website](#) or borrow our print copy.

(To borrow this item email library@energylibrary.org.nz Ref: **0709-Loan7**)

Special Journal Issues

Future Energy 2009. Supplement to *Energy World* (Energy Institute).

UK district energy schemes; Local energy, owned by local people; Caribbean island switches to wind-biodiesel power system; Micro-hydro - lighting up Andean communities; Local energy supplies - is better planning the answer?

(To borrow this whole issue email library@energylibrary.org.nz Ref: **0709-Loan8**)

Oil trading. A 5-article special report in the Apr 2009 issue of *Energy Risk*.

Oil storage data: Taking stock; Oil benchmarks; Galena Asset Management; Expropriation: A very real risk; Oil prices: The last contango.

(To borrow this whole issue email library@energylibrary.org.nz Ref: **0709-Loan9**)

New Management, Marketing and HR Articles

What really matters in networking. *Leader to Leader*; Winter 2008, Vol 2008 (47), p.60-62
(To request: email library@energylibrary.org.nz Ref: **0709-Network**)

If you can't engage and retain then capture the knowledge! Orme, Denis. *Human Resources Magazine*; Dec 2008/Jan 2009, Vol 13 (5), p.2-4
An article on knowledge management in New Zealand companies.
(To request: email library@energylibrary.org.nz Ref: **0709-KM**)

Newspapers: Newspapers get NIMble. Moore, P. *AdMedia*; May 2009, Vol 24 (4), p.14-17
Newspaper-inserted magazines (NIMs) have several advantages over other forms of advertising.
(To request: email library@energylibrary.org.nz Ref: **0709-Nimble**)



The end of rational economics. Ariely, Dan. *Harvard Business Review*; Jul 2009, Vol 87 (7), p.78-84
Standard economic theory assumes that human beings are capable of making rational decisions and that markets and institutions, in the aggregate, are healthily self-regulating. But the global economic crisis, argues Ariely, has shattered these two articles of faith and forced us to confront our false assumptions about the way markets, companies, and people work. So where do corporate managers -- who are schooled in rational assumptions but run messy, often unpredictable businesses -- go from here? In this lively article, the author, a professor of behavioral economics at Duke University, shows how the emerging discipline of behavioral economics can help businesses better defend against foolishness and waste.
(To request: email library@energylibrary.org.nz Ref: **0709-Rational**)

Boardroom operational and financial control: An insider view. Parker, Lee D. *British Journal of Management*; Mar 2008, Vol 19 (1), p.65-88
(To request: email library@energylibrary.org.nz Ref: **0709-Board**)

Environmental risk management and the cost of capital. Sharfman, Mark P.; Fernando, Chitru S. *Strategic Management Journal*; Jun 2008, Vol 29 (6), p.569-592
(To request: email library@energylibrary.org.nz Ref: **0709-Cost**)

Musculoskeletal disorders: Examining best practices for prevention. Amick III, Benjamin C. et al. *Professional Safety*; Mar 2009, Vol 54 (3), p.24-28
(To request: email library@energylibrary.org.nz Ref: **0709-Prevent**)

A cross-level perspective on employee creativity: Goal orientation, team learning behavior, and individual creativity. Hirst, Giles et al. *Academy of Management Journal*; Apr 2009, Vol 52 (2), p.280-293
(To request: email library@energylibrary.org.nz Ref: **0709-Create**)

New Energy and Environment Articles

Beyond batteries: An examination of the benefits and barriers to plug-in hybrid electric vehicles (PHEVs) and a vehicle-to-grid (V2G) transition. Benjamin K. Sovacool; Richard F. Hirsh. *Energy Policy*; Vol 37 (3), Mar 2009, p.1095-1103
(To request: email library@energylibrary.org.nz Ref: **0709-Hybrid**)

Compressed air system best practice programmes: What needs to change to secure long-term energy savings for New Zealand? J. R. Neale; P. J. J. Kamp. *Energy Policy*; Article in press, 2009

The establishment of a compressed air system (CAS) best practice programme is a key component of one of the initial industrial energy efficiency programmes being driven by New Zealand government ministries and agencies. In a global context this is not a new initiative in that existing programmes have been functioning in Europe and USA, yet in each of these cases the impact ten years on has been patchy with limited long-term improvements in overall energy efficiency. The New Zealand CAS best practice programme currently under development is sponsored by the Electricity Commission (EC) and the Energy Efficiency Conservation Authority (EECA). It takes a new approach in policy direction, with variations from those used in other international programmes. A significant level of electricity levy money is to be committed to this programme and it is timely to highlight its merits and potential weaknesses, and what is required to generate long-term energy savings beyond the levels achieved by more mature overseas programmes.

(To request: email library@energylibrary.org.nz Ref: **0709-Air**)

Real-world energy use and emission rates for idling long-haul trucks and selected idle reduction technologies. H. Christopher Frey; Po-Yao Kuo. *Journal of the Air & Waste Management Association*; Jul 2009 Vol 59 (7), p. 857-864

(To request: email library@energylibrary.org.nz Ref: **0709-Idle**)

Two approaches to using energy recovery to improve overall system energy efficiency rating. Klas C. Haglid. *Energy Engineering*; Vol 106 (4) 2009, p.7-28

Four outdoor air HVAC (heating, ventilation and air conditioning) systems are evaluated.

(To request: email library@energylibrary.org.nz Ref: **0709-Rating**)

Water and energy use efficiency are increasingly linked. Walker, G. *Energy World*; Mar 2009 (369), p.18-19

Large quantities of water are essential to many parts of the energy industry and the water industry is itself a sizable energy user. Meanwhile, consumers are using too much of the precious liquid resource. One part of the answer might be a joint programme to encourage energy and water savings at the same time; a programme that Waterwise and Energy Saving Trust are already operating together for UK domestic users.

(To request: email library@energylibrary.org.nz Ref: **0709-Water**)

Smart gas metering: New product options - Case studies from Germany. Haller, Thomas; Rentschler, Mark-Daniel. *Metering International*; 2/2009, p.52-54

(To request: email library@energylibrary.org.nz Ref: **0709-Gas**)

Electricity smart metering as an instrument for energy efficiency. Saele, Hanne. *Metering International*; 2/2009, p.47-50

This article is based on findings of the European Smart Metering Alliance (ESMA) project.
(To request: email library@energylibrary.org.nz Ref: **0709-Smart**)

Achieving sustainability in the construction supply chain. Adetunji, I. *Institution of Civil Engineers: Proceedings: Engineering Sustainability*; Vol 161 (3) Sept 2008, p.161-172

(To request: email library@energylibrary.org.nz Ref: **0709-Chain**)

The ant, the grasshopper or Schrödinger's cat: An exploration of concepts of sustainability. Grinde, J.; Khare, A. *Journal of Environmental Assessment Policy & Management*; Jun 2008, Vol 10 (2), p.115-141

(To request: email library@energylibrary.org.nz Ref: **0709-Ant**)



A bond boost for green tech markets? Curley, Michael. *Environmental Finance*; Apr 2009 Vol 10 (6), p.18-19

A new concept in public finance - voluntary environmental improvement bonds - could unlock massive untapped retail demand for a whole range of environmental technologies.
(To request: email library@energylibrary.org.nz Ref: **0709-Bond**)

Feature analysis. *MarketWatch: Energy*; Jun 2009, Vol 8 (6), p.8-17

This analysis consists of short articles updating the condition of energy industries around the world: Security of supply conundrum finally cracked by fission; Brown looks to stay green, even when in the red; Wind and CCS stakeholders go head to head following funding fears; Boom and bust for Spain's heavily subsidized solar industry; The UK's latest proposal for a FIT system is ambitious, but misguided; UK-Nord Pool collaboration is a step towards EU energy integration; Centrica and EDF strike win-win deal, but one wins more than the other
(To request: email library@energylibrary.org.nz Ref: **0709-Energy**)

Better bioenergy. Mark Purdon et al. *Alternatives Journal*; 35 (2) 2009, p.22-25

Lifecycle analysis should be used to ascertain the best biofuels, according to Resource Efficient Agricultural Production Canada (REAP-Canada). This non-profit organisation promotes sustainable bioenergy production.

(To request: email library@energylibrary.org.nz Ref: **0709-Biofuel**)

The economics of a blend mandate for biofuels. de Gorter, Harry; Just, David R. *American Journal of Agricultural Economics*; Aug 2009, Vol 91 (3), p.738-750

(To request: email library@energylibrary.org.nz Ref: **0709-Blend**)

Auxiliary heating is on its way. Trojek, Stefan. *Sun & Wind Energy*; 4/2009, p.76-81

An article about combining solar thermal energy systems with heat pumps.
(To request: email library@energylibrary.org.nz Ref: **0709-Solar**)

Intelligent design and modelling of natural gas storage facilities. A. W. Mann III, L. F. Ayala. *International Journal of Modelling & Simulation*; Vol. 29 (2) 2009, p.214-223
(To request: email library@energylibrary.org.nz Ref: **0709-Storage**)

Shallow ground energy systems. Boennec, O. *Institution of Civil Engineers. Proceedings - Energy*; May 2008 Vol 161 (2), p.57-61

In a move to reduce the effects of climate change and energy dependency, planners, regulators and local authorities have encouraged or requested a number of technologies for saving carbon to be integrated into new buildings. Ground-source energy is among these technologies and one that has been applied to many parts of the construction industry including buildings, green houses, roads and bridges. Of particular interest is the integration of ground energy systems into the structural piles of the building. Energy piles have been installed in many buildings in the last 10-15 years in the USA, Europe and Britain. What does it mean to structural engineers? Will these energy piles require a redesign of the building? Will they lead to the loss of load-carrying capacity of the piled foundations? This article will look at the progress of the ground-source heat pump industry to date and will consider an opinion on the future. It will define some of the challenges facing structural, civil and services engineers and the opportunities for developing a new range of solutions to the construction industry. *Abstract reprinted with the permission of Thomas Telford Limited:*

http://www.ice.org.uk/services/services_journals.asp

(To request: email library@energylibrary.org.nz Ref: **0709-Shallow**)

Deep geothermal's potential. Brunskill, Brian; Vigrass, Laurence. *Canadian Consulting Engineer*; May 2009, Vol 50 (3), p.36-37

(To request: email library@energylibrary.org.nz Ref: **0709-Deep**)

Performance assessment of a geothermally heated building. Yildiz Kalinci et al. *Energy Policy*; Vol 37 (4), Apr 2009, p.1502-1508

(To request: email library@energylibrary.org.nz Ref: **0709-Geothermal**)

Creating energy communities - experiences of Orkney, Scotland. Davies, Gareth. *Energy World*; Nov 2008 (365), p.16-17

Readers were introduced to the tidal energy prospects for the Pentland Firth, which separates mainland Scotland from Orkney, in the June 2008 issue. Here, the author discusses energy initiatives and projects carried out by local communities from these northern islands.

(To request: email library@energylibrary.org.nz Ref: **0709-Orkney**)

Tilting at windmills? The environmental movement and the emergence of the U.S. wind energy sector. Sine, W. D.; Lee, B. H. *Administrative Science Quarterly*; Mar 2009, Vol 54 (1), p.123-155

(To request: email library@energylibrary.org.nz Ref: **0709-Wind**)

Powering progress: Restructuring, competition, and R&D in the U.S. electric utility industry. Sanyal, Paroma; Cohen, Linda R. *Energy Journal*; 2009, Vol 30 (2), p.41-79

(To request: email library@energylibrary.org.nz Ref: **0709-Utility**)

Improving electricity resource-planning processes by considering the strategic benefits of transmission. Vikram S. Budhraj et al. *The Electricity Journal*; Vol 22 (2), Mar 2009, p.54-63

Current methods of evaluating the economic impacts of new electricity transmission projects fail to capture the many strategic benefits of these projects, such as those resulting from their long life, dynamic changes to the system, access to diverse fuels, and advancement of public policy goals to integrate renewable-energy resources and reduce greenhouse gas emissions. (To request: email library@energylibrary.org.nz Ref: **0709-Transmission**)

Divestitures in the electricity sector: Conceptual issues and lessons from international experiences. Hannes Weigt et al. *The Electricity Journal*; Vol 22 (3), Apr 2009, p.57-69

Competition policy is an important tool of governments to establish functioning markets, particularly in the scope of liberalizing the energy sector. An examination of horizontal divestitures in several markets suggests that in appropriate cases divestiture can enhance competition in the electricity sector. (To request: email library@energylibrary.org.nz Ref: **0709-Divest**)

A survey of critical research areas in the energy segment of restructured electric power markets. Vishnu Nanduri, Tapas K. Das. *International Journal of Electrical Power & Energy Systems*; Vol 31 (5), Jun 2009, p.181-191

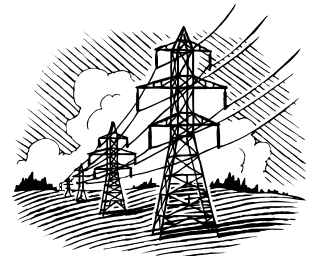
Availability of a large volume of recent literature on deregulated electricity markets underscores the importance of the research needs to ensure proper design and functioning of the markets. Researchers have made significant contributions fueling the evolution of the fundamental market design changes that have taken place since the beginning of the restructuring process. Due to the vast scope, existing survey papers are focused on particular facets of deregulated electricity markets. We adopt a similar approach by focusing on the most important research areas related to the energy market. The contribution of this survey paper lies in the novel approach used in classifying the literature based on critical research areas. (To request: email library@energylibrary.org.nz Ref: **0709-Survey**)

Regulatory practice and politics: Lessons from independent regulation in Indian electricity. N. K. Dubash; D. Narasimha Rao. *Utilities Policy*; Vol 16 (4), Dec 2008, p.321-331 (To request: email library@energylibrary.org.nz Ref: **0709-Regulation**)

Electricity portfolio management: Optimal peak/off-peak allocations. Ronald Huisman et al. *Energy Economics*; Vol 31 (1), Jan 2009, p.169-174

Electricity purchasers manage a portfolio of contracts in order to purchase the expected future electricity consumption profile of a company or a pool of clients. This paper proposes a mean-variance framework to address the concept of structuring the portfolio and focuses on how to optimally allocate positions in peak and off-peak forward contracts.

(To request: email library@energylibrary.org.nz Ref: **0709-Peak**)



Hydropower planning coordinated with wind power in areas with congestion problems for trading on the spot and the regulating market. Julija Matevosyan et al. *Electric Power Systems Research*; Vol 79 (1) Jan 2009, p.39-48

In this paper a day-ahead planning algorithm for a multi-reservoir hydropower system coordinated with wind power is developed. Coordination applies to real situations, where wind power and hydropower are owned by different utilities, sharing the same transmission lines, though hydropower has priority for transmission capacity. Coordination is thus necessary to minimize wind energy curtailments during congestion situations. The planning algorithm accounts for the uncertainty of wind power forecasts and power market price uncertainty. Planning for the spot market and the regulating market is considered in the algorithm. The planning algorithm is applied to a case study and the results are summarized in the paper.
(To request: email library@energylibrary.org.nz Ref: **0709-Spot**)

Moving the capital markets: The EU Emissions Trading Scheme. Sullivan, Rory; Pfeifer, Stephanie. *Journal of Corporate Citizenship*; (33) Spring 2009, p.87-96
(To request: email library@energylibrary.org.nz Ref: **0709-ETS**)

Coal and nuclear: Can we rehabilitate these environmental offenders? DiPeso, Jim. *Environmental Quality Management*; Summer 2008, Vol 17 (4), p.97-103
(To request: email library@energylibrary.org.nz Ref: **0709-Coal**)

A case study of Shell at Sakhalin: Having a whale of a time? Ray, Subhasis. *Corporate Social Responsibility & Environmental Management*; May/Jun 2008, Vol 15 (3), p.173-185
The author presents a case study of environmental challenges for a large oil company on a Russian oil and gas mega-project.
(To request: email library@energylibrary.org.nz Ref: **0709-Shell**)

Medupi and Kusile: Supercritical giants of South Africa. Fouilloux, Jean-Pierre; Otto, Mark. *Modern Power Systems*; Apr 2009, Vol 29 (4), p.13-23
(To request: email library@energylibrary.org.nz Ref: **0709-Africa**)

Measurements get together. Chakrabarti, S. et al. *IEEE Power & Energy*; Jan/Feb 2009 Vol 7 (1), p.41-49

This article deals with the synchronized measurement technology that has the potential of becoming the backbone for a real-time monitoring system. The secure and reliable operation of modern power systems is an increasingly challenging task due to the ever-increasing demand for electricity, the growing number of interconnections, penetration of variable renewable energy sources, and deregulated energy market conditions. Power companies in different parts of the world are therefore feeling the need for a real-time wide area monitoring, protection, and control (WAMPAC) system. Synchronized measurement technology (SMT) has the potential of becoming the backbone of this system. The major advantages of using SMT are that 1) the measurements from widely dispersed locations can be synchronized with respect to a Global Positioning System (GPS) clock, 2) voltage phase angles can be measured directly, which was so far technically infeasible, and 3) the accuracy and speed of energy management system (EMS) applications increases manifold. © 2009 IEEE. Reprinted with permission of the IEEE
(To request: email library@energylibrary.org.nz Ref: **0709-Measure**)

A new approach to defining risk in rehabilitation work. Gummer, J. H.; Obermoser, H. *International Journal on Hydropower & Dams*; Vol 15 (5) 2008, p.58-63
(To request: email library@energylibrary.org.nz Ref: **0709-Rehab**)

Reliability centered asset management for medium-voltage deteriorating electrical equipment based on Germany failure statistics. Xiang Zhang; Jiaosuo Zhang; Gockenbach, E. *IEEE Transactions on Power Systems*; May 2009, Vol 24 (2), p.721-728
The aim of this research work focuses on three basic aspects: at first, the general life and reliability models of electrical equipment are required to evaluate the actual conditions of the electrical equipment; secondly, available maintenance models shall be found to describe actual maintenance actions in continuous processes; thirdly, such a mathematical approach can optimize the maintenance strategies for maximal reliability and minimal costs.
© 2009 IEEE. Reprinted with permission of the IEEE
(To request: email library@energylibrary.org.nz Ref: **0709-Asset**)

Want to see more articles? New articles are added to our members' online catalogue every week. Please [contact us](#) if you have forgotten your login details.

Special Topic: Microgeneration



Avoided losses on LV networks as a result of microgeneration. *Electric Power Systems Research*; Vol. 79 (4), Apr 2009, p.629-634
(To request: email library@energylibrary.org.nz Ref: **0709-Topic1**)

UK microgeneration. Part I: Policy and behavioural aspects. Bergman, N. et al. *Institution of Civil Engineers. Proceedings - Energy*; Feb 2009 Vol. 162 (1), p.23-36
(To request: email library@energylibrary.org.nz Ref: **0709-Topic2**)

The implications of an increasingly decentralised energy system. *Energy Policy*; Vol. 36 (12), Dec 2008, p.4509-4513
The UK government has signalled that the increasing use of decentralised energy forms part of its plan to achieve the UK's contribution to the EU's sustainable energy targets. Much of the technology for decentralised energy already exists, although it is not widely used in the UK. There will be a need for new developments in onsite energy production, and in the delivery, integration and regulatory infrastructure to support it. Other State of Science reviews for this project describe particular energy technologies, but this paper highlights selected developments in thermal technologies and in biological processes which offer the potential for breakthroughs in converting biomass to energy.
(To request: email library@energylibrary.org.nz Ref: **0709-Topic3**)

Assessment of highly distributed power systems using an integrated simulation approach. G. M. Burt et al. *Proceedings of the Institution of Mechanical Engineers: Part A: Journal of Power and Energy*; Nov 2008. Vol. 222 (7), p.657-668
(To request: email library@energylibrary.org.nz Ref: **0709-Topic4**)

Regulation of microgeneration and microgrids. Costa, P. M. et al. *Energy Policy*; Vol 36 (10), Oct 2008, p.3893-3904

The concept of microgrid ([mu]Grid) has been emerging as a way to integrate microgeneration ([mu]G) in low-voltage (LV) networks and simultaneously improve its potential benefits. Technical requirements to connect [mu]grids to LV networks have been studied in order to make this concept technologically feasible and safe to operate. However, the regulatory framework for economic integration of [mu]G and [mu]Grids on distribution systems, despite being crucial, is still an open issue. The main purpose of this paper is to contribute to the development of an appropriate economic regulation framework that removes the barriers to [mu]G and [mu]Grid development. To do so, the relevant costs and benefits resulting from the establishment of [mu]G and [mu]Grid are identified and a methodology for sharing those costs and benefits among the involved economic agents is presented.

(To request: email library@energylibrary.org.nz Ref: **0709-Topic5**)

Proposing a new advanced control technique for micro hydro power plants. M. Hanmandlu and H. Goyal. *International Journal of Electrical Power & Energy Systems*; Vol 30 (4), May 2008, p.272-282

(To request: email library@energylibrary.org.nz Ref: **0709-Topic6**)

Integrated appraisal of micro-generators: Methods and applications. Allen S. R. et al. *Institution of Civil Engineers. Proceedings - Energy*; May 2008 Vol. 161 (2), p.73-86

(To request: email library@energylibrary.org.nz Ref: **0709-Topic7**)

Network power-flow analysis for a high penetration of distributed generation. Thomson, M.; Infield, D. G. *IEEE Transactions on Power Systems*; Vol. 22 (3) 2007, p.1157-1162

Increasing numbers of very small generators are being connected to electricity distribution systems around the world. Examples include photovoltaics (PV) and gas-fired domestic-scale combined heat and power (micro-CHP) systems, with electrical outputs in the region of 1 to 2 kW. These generators are normally installed within consumers' premises and connected to the domestic electricity supply network (230 V single-phase in Europe, 120 V in North America). There is a growing need to understand and quantify the technical impact that high penetrations of such generators may have on the operation of distribution systems. This paper presents an approach to analyzing this impact together with results indicating that considerable penetrations of micro-generation can be accommodated in a typical distribution system.

© 2007 IEEE. Reprinted with permission of the IEEE

(To request: email library@energylibrary.org.nz Ref: **0709-Topic8**)

Microgeneration references.

The above is just a sample of articles we hold on this topic. You may receive a longer list of articles by emailing us at library@energylibrary.org.nz with the Ref: **0709-Biblio**.

Online resources on microgeneration

Location location location - The Energy Saving Trust's field trial 2009 [report](#) on domestic wind turbines.

Encraft Warwick Wind Trials Project final report - 2009 [report](#) summarising the findings from the Project which included 26 building-mounted wind turbines from five manufacturers across the UK during 2007-2008.

Small wind systems UK market report 2009 - BWEA [report](#).

Distributed energy roles for geothermal resources in New Zealand - 2008 East Harbour Management Services [report](#).

Microgeneration potential in New Zealand: A study of small-scale energy generation potential - 2006 East Harbour Management Services [report](#) for Parliamentary Commissioner for the Environment.

Reports on distributed generation in New Zealand. Examples of reports from this EECA website [page](#) include:

- Developing small-scale renewable energy projects in New Zealand
- Costs and benefits of connecting distributed generation to local networks
- Grid-connected domestic and small-scale renewables in New Zealand: Business as usual uptake projections to 2030

Micropower Council (UK) - www.micropower.co.uk

Energy on the Web

New Zealand

Thieves in the night. This July *Consumer* [report](#) contains a list of appliances, with estimates of how much power they guzzle (or don't).



New Zealand's 2020 Emissions Target - July Ministry for the Environment [brochure](#).

The Commerce Commission's approach to estimating the cost of capital: Revised draft guidelines - June discussion [document](#). The related press release is [here](#).

Building energy innovation capability in NZ - 2009 NERI [report](#).

Economic modelling of New Zealand climate change policy - NZIER/Infometrics [report](#) to Ministry for the Environment.

Smart electricity meters: How households and the environment can benefit - 2009 Parliamentary Commissioner for the Environment [report](#).

- See also the June 29th Dominion Post [article](#) by the Commissioner about her report.
- See also Consultants' [reports](#) on smart meters & tariff structures, prepared for PCE.

Review of system protection schemes - David Strong & Associates June 2009 [report](#) for the Electricity Commission.

Orion New Zealand environmental performance assessment – 2009 carbon assessment [report](#) prepared by MWH for Orion.

Environstep – [Online](#) environmental assessment tool developed by MED in conjunction with Business NZ.

International

IEA responds to the climate crisis - July *Renewable Energy World* [podcast](#).

Directions in hydropower: Scaling up for development - June World Bank [report](#).

Impact of intermittency - Pöyry [report](#) released in July.

Wind power: Managing variability - July [report](#) by David Milborrow (Energy Consultant) to WWF-UK, RSPB, Greenpeace UK and Friends of the Earth.

Global potential for wind-generated electricity - 2009 *Proceedings of the National Academy of Sciences of the United States of America* [article](#).

Biorefineries: Adding value to the sustainable utilisation of biomass – feature [article](#) in the 2008 annual report for IEA Bioenergy.

Sustainability certification for biofuels and bioenergy - [presentations](#) from this January VITO/IEA workshop in Brussels.

Land use changes due to bioenergy quantifying and managing climate change and other environmental impacts – [presentations](#) from this March IEA workshop in Helsinki.

Programmes to reduce household energy consumption - House of Commons (UK) [report](#).

Life cycle cost analysis of energy efficiency design options for refrigerators in Brazil - 2009 *Energy Efficiency* [article](#) (all articles from this journal are free online until end of 2009).

Breaking the climate deadlock: Technology for a low carbon future – July Climate Group [report](#).

The UK low carbon transition plan: National strategy for climate and energy – July UK Government [report](#).

Redefining what's possible for clean energy by 2020: Job growth energy security climate change solutions - June Gigaton Throwdown [report](#).

The clean energy economy: Repowering jobs, businesses and investments across America – June Pew Charitable Trusts [report](#).

Carbon markets and their implications for natural resource management in Australia – May CSIRO working [paper](#).

Utilities scramble to meet power needs of electric cars - July *Time* magazine [article](#).

Giving the grid some backbone – 2009 *Scientific American Special Edition* [article](#).

GE, Tendiril partner to hook up smart appliances to the grid - July *earth2tech* blog [post](#).

Deploying AMI in a down economy – February *Transmission & Distribution World* [article](#).

ENA customer guide to electricity supply – Electricity Networks Association [publication](#).

The state of the nation: Defending critical infrastructure – Institution of Civil Engineers (ICE) [report](#) released in June.

Fuel for Thought

Electrickery - Check out some flash demonstrations of electrical mastery [here](#).

Congratulations to Kathryn, who was the winner of last month's competition. To enter this month's draw for a **king size bar of energy chocolate** just [email](#) us the answer to this question:

Which famous electrical engineer was born on 10th July 1856?

Draw closes Friday Fri 21st August.



Other Services

Engineering Update: View previous issues [here](#) and [request](#) to receive it by email (monthly).

Customized Topic Updates and **Table of Contents Service:** [Email](#) us if you would like information about these member services.

If you wish to be subscribed or unsubscribed to the Energy Update just let us know by [email](#) or phone.

Web addresses (URLs) in this newsletter were valid on the date of publication but may change or be discontinued. Energy Library is not responsible for content on external websites.