

Energy Update

June 2010

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

This month our special topic is:
Integrating Renewable Energy.

We welcome your input, so if you have a suggestion for a future special topic, please [email](#) it to us.

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Kat McAra, Current Awareness Advisor



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New Items for Loan

Solar trillions: 7 market and investment opportunities in the emerging clean-energy economy. Seba, Tony. San Francisco: Deba Group, 2009
(To borrow this book email library@energylibrary.org.nz Ref: **0610-Loan1**)

IEA scoreboard 2009: 35 key energy trends over 35 years. International Energy Agency. Paris, France: OECD/IEA, 2009
This is a consideration of the changes in the energy sector, from the development of renewable forms of energy, to the concerns of environmental aspects of energy.
(To borrow this book email library@energylibrary.org.nz Ref: **0610-Loan2**)

HR in energy ... A personnel challenge. Energy Institute / Feering Productions. London: Energy Institute, 2010

This is a 50-minute documentary on skills in the energy industry. It reviews how the industry manages its existing human capital, explains the concern over future technical skills shortages in energy provision - especially upstream oil and gas - and discusses what initiatives governments, companies and trade bodies are implementing to address this issue. Contributions from Shell UK, IEEE, IEA, OPEC, and other relevant organisations are included. (To borrow this DVD email library@energylibrary.org.nz Ref: **0610-Loan3**)

1001 Ways to reward employees. Nelson, Bob. Revised ed. New York: Workman Publishing, 2005

"You get the best effort from others not by lighting a fire beneath them, but by building a fire within them" best sums up Bob Nelson's philosophy of motivation. (To borrow this book email library@energylibrary.org.nz Ref: **0610-Loan4**)

Perspectives 2010. This supplement to *Energy NZ* magazine contains views from leaders and experts in the oil and gas, electricity, renewables and resources sectors (Straterra, ENA, EECA, Solid Energy, GNS Science, New Zealand Geothermal Association, New Zealand Wind Energy Association, Aotearoa New Zealand Wave and Tidal Association, ABB, etc.) It is available on the Web or you can borrow our print version.

(To borrow this journal issue email library@energylibrary.org.nz Ref: **0610-Loan5**)

Household energy affordability: Literature review. Ministry of Social Development; Energy Efficiency and Conservation Authority (EECA). Wellington: Ministry of Social Development; EECA, 2010

This 66-page report is available on the Web or you can borrow our print version. (To borrow this report email library@energylibrary.org.nz Ref: **0610-Loan6**)

New Management, Marketing and HR Articles

Turn the job you have into the job you want. Wrzesniewski, A. et al. *Harvard Business Review*; Jun 2010, Vol. 88 (6), p.114-117

The case study of a fictional marketing executive is used to illustrate "job crafting". This is a process that enables you to morph your existing job into a more satisfying one, which will in turn make you a more effective worker.

(To request: email library@energylibrary.org.nz Ref: **0610-Craft**)

Selling your ideas: Giving some wattage to those lightbulbs. Scharlatt, H. *Leadership in Action*; Jul/Aug 2008, Vol. 28 (3), p.12-16

(To request: email library@energylibrary.org.nz Ref: **0610-Ideas**)

Jump onboard. Walker, R. *Employment Today*; Jun 2010 (147), p.24-26

Effective induction ("onboarding") leads to higher employee engagement and productivity. (To request: email library@energylibrary.org.nz Ref: **0610-Induction**)

The impacts of shiftwork on employees. Shen, J.; Dicker, B. *International Journal of Human Resource Management*; Feb 2008, Vol. 19 (2), p.392-405
(To request: email library@energylibrary.org.nz Ref: **0610-Shift**)

Permits that work. Hodson, Edward. *Occupational Safety and Health*; Aug 2009 Vol. 39 (8), p.29-32
The author describes the ideal permit-to-work system.
(To request: email library@energylibrary.org.nz Ref: **0610-Permits**)



Do you know what you own? Blumsky, C. *IRHACE Journal: Refrigeration, Heating and Air Conditioning*; Jul/Aug 2009 Vol. 21 (4), p.34-35
An article about intellectual property.
(To request: email library@energylibrary.org.nz Ref: **0610-IP**)

Attributes of a harmonious project team. Rad, P. F.; Anantatmula, V. S. *AACE International Transactions*; 2009, p.000.000.1-000.000.9 (9p.)
(To request: email library@energylibrary.org.nz Ref: **0610-Project**)

Enhancing value engineering process by incorporating inventive problem-solving techniques. X. Mao et al. *Journal of Construction Engineering & Management*; May 2009, Vol. 135 (5), p.416-424

The creativity phase is critical to the success of a value engineering exercise, in which the brainstorming technique is deployed to generate ideas. One shortcoming of the brainstorming technique is its lack of direction in problem solving, and consequently the efficiency is low in generating innovative and useful ideas. To overcome this shortcoming, this paper has explored the possibility of incorporating the theory of inventive problem solving (TRIZ) into the workshop session of the value engineering exercise by initiating three new procedures in this session: (1) an initial design procedure to examine the functions of a proposed project; (2) a function trimming procedure to fully utilize existing resources and ensure low life-cycle cost and sustainability of the proposed project; and (3) an interaction analysis procedure to assess the proposed project in a broad perspective with social, economic, and environmental awareness. A case study has indicated the workability of the modified workshop procedures and the usefulness of TRIZ tools and techniques in efficiently and effectively creating innovative ideas.

(To request: email library@energylibrary.org.nz Ref: **0610-Value**)

Average internal rate of return and investment decisions: A new perspective. Magni, C. A. *Engineering Economist*; 2010, Vol. 55 (2), p.150-180
(To request: email library@energylibrary.org.nz Ref: **0610-IRR**)

Improving the diagnosis and prediction of customer churn: A heterogeneous hazard modeling approach. Jamal, Z.; Bucklin, R. E. *Journal of Interactive Marketing*; Summer/Autumn 2006, Vol. 20 (3/4), p.16-29
(To request: email library@energylibrary.org.nz Ref: **0610-Churn**)

New Energy Articles and Environment Articles

Development of an economical model to determine an appropriate feed-in tariff for grid-connected solar PV electricity in all states of Australia. A. Zahedi. *Renewable and Sustainable Energy Reviews*, Vol. 13 (4), May 2009, p.871-878

(To request: email library@energylibrary.org.nz Ref: **0610-Tariff**)

Clean Energy Cashback - not yet FiT for purpose. *MarketWatch: Energy*; May 2010, Vol. 9 (5), p.23-25

This article reports on the British feed-in tariff (FiT) subsidy scheme for microgeneration.

(To request: email library@energylibrary.org.nz Ref: **0610-FIT**)

Analysis of PV/wind potential in the Canadian residential sector through high-resolution building energy simulation. Syed, A. M. et al. *International Journal of Energy Research*; Mar 2009, Vol. 33 (4), p.342-357

(To request: email library@energylibrary.org.nz Ref: **0610-Building**)

Chemical stimulation techniques for geothermal wells: Experiments on the three-well EGS system at Soultz-sous-Forets, France. S. Portier et al. *Geothermics*; Vol. 38 (4), Dec 2009, p.349-359

Rock matrix stimulation is a method of enhancing well production or injection within a broad range of challenging environments, varying from naturally fractured limestones to sandstones with complex mineralogy. A common and often successful stimulation option, matrix acidizing, utilizes acids that react and remove mineral phases restricting fluid flow. Reviewed is the technology of chemical treatments available for oil, gas and geothermal wells and the key elements and results of the chemical reservoir stimulation program at the Soultz-sous-Forets, France, Enhanced Geothermal System Project.

(To request: email library@energylibrary.org.nz Ref: **0610-Wells**)

Electricity production from geothermal sources by using double-stage flash system.

Selek-Murathan, A. et al. *Energy Sources Part A: Recovery, Utilization & Environmental Effects*; Dec 2008, Vol. 30 (20), p.1884-1889

(To request: email library@energylibrary.org.nz Ref: **0610-Geothermal**)

2005 – 2010 New Zealand Country Update. Colin C. Harvey et al. This paper presented the Proceedings World Geothermal Congress 2010 Bali, Indonesia, 25-29 April 2010 is [online](#).

Policy instruments promoting wood-to-energy uses in the continental United States.

Aguilar, F. X.; Saunders, A. *Journal of Forestry*; Apr/May 2010, Vol. 108 (3), p.132-140

An examination of state-level renewable energy policy instruments, with special attention to woody biomass, was completed to ascertain policy trends in the continental United States. Financial incentives are the most widely used instruments to encourage the use of woody biomass as an energy feedstock. Instruments of a mandatory nature primarily involve renewable energy portfolio standards. Most of the policies adopted in the continental United States encompass a variety of renewable energy feedstocks and only a few uniquely target

woody biomass. This research provides insights into instruments that are being implemented across the nation, an assessment of their pros and cons, and the use of safeguards against undesired negative impacts. The article concludes with an outlook of the future adoption of wood-to-energy policy instruments in the country.

(To request: email library@energylibrary.org.nz Ref: **0610-Bioenergy**)

Combined heat and power in a carbon-constrained world. Lee, R. *Institution of Civil Engineers. Proceedings - Energy*; Feb 2010 Vol. 163 (EN1), p.31-39

(To request: email library@energylibrary.org.nz Ref: **0610-CHP**)

Koudiat Acerdoune: Tackling complex geology and design in a seismic area. Boinay, V.; Frossard, E. *International Journal on Hydropower & Dams*; Vol. 16 (1), 2009, p.66-70

(To request: email library@energylibrary.org.nz Ref: **0610-Hydro**)

Determination of crushed stone volume in concrete cores from hydroelectric power plant dams by three-dimensional tomography. Mendes, R. et al. *Insight: Non-Destructive Testing & Condition Monitoring*; Dec 2009, Vol. 51 (12), p.654-659

(To request: email library@energylibrary.org.nz Ref: **0610-Dams**)

The electric vehicle opportunity for utilities. Harkin, S. *Energy World*; Mar 2010 (380), p.14-16

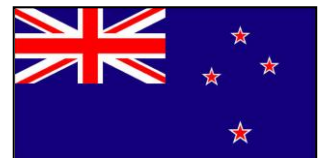
Examines the opportunities that European utilities are hoping to exploit as electric vehicles come to market in the next decade and what this could mean for the future of the electricity system. Draws attention to the hurdles that could still sink this transport paradigm shift.

(To request: email library@energylibrary.org.nz Ref: **0610-Vehicles**)

Electric-car developments raise grid questions - [online](#) *Engineering & Technology* article.

Cleaner production in New Zealand: Taking stock. G. Brown; L. Stone. *Journal of Cleaner Production*; Vol. 15 (8-9), 2007, p.716-728

New Zealand has seen a significant change in attitude and behaviour toward sustainable business practices since the late 1980s when the introduction of cleaner production marked the beginning of a change in the way the relationship between business and the environment was perceived. The context of this change is important. New Zealand is unique in terms of its relative geographic isolation and as a consequence human settlers encountered a unique ecosystem, dominated by avian species and without mammalian predators. Subsequent anthropogenic activity has seriously impacted New Zealand's biodiversity and sustainability is seen by many as a way of restoring, or at least conserving the remnant of that unique ecosystem. The country's natural environment and resources, the shape of business and the health of the economy all colour the way and rate at which sustainability is adopted. This paper charts that change and provides a perspective on relevant policy, research and intervention initiatives over the last 15 years or so and discusses the challenges that face New Zealand in a global market.



(To request: email library@energylibrary.org.nz Ref: **0610-NZ**)

Energy efficiency opportunities in the U.S. pulp and paper industry. Kramer, K. J. et al. *Energy Engineering*; 2010, Vol. 107 (1), p.21-50
(To request: email library@energylibrary.org.nz Ref: **0610-Pulp**)

Energy conservation through employee suggestions. Younis, J. *Michael Strategic Planning for Energy & the Environment*; Summer 2009, Vol. 29 (2), p.9-17
(To request: email library@energylibrary.org.nz Ref: **0610-Conservation**)

Development of a high-efficiency air cooled packaged air-conditioner for data centers. Sekiguchi, K. et al. *ASHRAE Transactions*; 2010, Vol. 116 (1), p.330-335
(To request: email library@energylibrary.org.nz Ref: **0610-Air**)

Optimisation and design of ducted daylight systems. A. P. Robertson et al. *Lighting Research and Technology*; Jun 2010, Vol. 42 (2), p.161-181
(To request: email library@energylibrary.org.nz Ref: **0610-Light**)

Designing and constructing cost-neutral greener facilities in the "Energy Climate" era. Spittler, J. R. et al. *AACE International Transactions*; 2009, pPM.05.1-PM.05.20
(To request: email library@energylibrary.org.nz Ref: **0610-Green**)

Fly ash looms as the 'new asbestos'. Post, N. M. *Engineering News Record (ENR)*; 12 Apr 2010 Vol. 264 (11), p.12-13
(To request: email library@energylibrary.org.nz Ref: **0610-Ash**)

Compressed air auditing shows huge potential. *IRHACE Journal: Refrigeration, Heating and Air Conditioning*; Jan/Feb 2010, Vol. 22 (1), p.32-33
(To request: email library@energylibrary.org.nz Ref: **0610-Audit**)

Life-cycle analysis of roofing insulation levels for cold storage buildings. Richman, R. et al. *Journal of Architectural Engineering*; Jun 2009, Vol. 15 (2), p.55-61
To reduce operating costs, cold storage buildings are being designed with increasing levels of thermal roof insulation. This paper examines the current state of the art in order to estimate average roof insulation requirements in modern cold storage buildings. This research includes both economic and environmental considerations. The added environmental impact of manufacturing thermal insulation is compared to the reduced environmental impact of the building's cooling load. The cost of purchasing and installing additional roof insulation is also compared to the annual energy savings associated with the increase to establish the most economic insulating level given today's cost of energy. This paper shows that, from an economic, as well as from an environmental performance perspective, there is a need to design more efficient, sustainable cold storage buildings now.
(To request: email library@energylibrary.org.nz Ref: **0610-Cool**)

Computational fluid dynamics and interactive multiobjective optimization in the development of low-emission industrial boilers. Saario, A.; Oksanen, A. *Engineering Optimization*; Sep 2008, Vol. 40 (9), p.869-890
(To request: email library@energylibrary.org.nz Ref: **0610-Boilers**)

Carbon footprinting: Opportunities and threats. M. Finkbeiner. *The International Journal of Life Cycle Assessment*; Mar 2009, Vol. 14 (2), p.91-94
(To request: email library@energylibrary.org.nz Ref: **0610-Carbon**)

Briefing: Strategic research on climate impacts. Hall, J. W.; Street, R. B. *Institution of Civil Engineers: Proceedings: Engineering Sustainability*; Vol. 163 (1), Mar 2010, p.7-8
This briefing outlines UK strategic research programmes on climate impacts and adaptation for infrastructure, the built environment and utilities over the past eight years. Future research prospects are highlighted. *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: **0610-Climate**)

Emissions trading, wealth transfers and the Wounded Bull Scenario in power generation. Simshauser, P.; Doan, T. *Australian Economic Review*; Mar 2009, Vol. 42 (1), p.64-83
(To request: email library@energylibrary.org.nz Ref: **0610-ETS**)



Kyoto v WTO: Carbon tariffs -- Addressing conflicts between the Kyoto Protocol and international trade rules. Milner-White, G. R. *New Zealand Journal of Environmental Law*; 2009 Vol. 13, p.37-71
(To request: email library@energylibrary.org.nz Ref: **0610-Trade**)

Natural gas markets: How sensitive are they to crude oil price changes? Onour, I. A. *OPEC Energy Review*; Jun 2009, Vol. 33 (2), p.111-124
(To request: email library@energylibrary.org.nz Ref: **0610-Gas**)

Time-varying risk aversion: An application to energy hedging. J. Cotter; J. Hanly. *Energy Economics*; Vol. 32 (2), Mar 2010, p.432-441
Risk aversion is a key element of utility maximizing hedge strategies; however, it has typically been assigned an arbitrary value in the literature. This paper instead applies a GARCH-in-Mean (GARCH-M) model to estimate a time-varying measure of risk aversion that is based on the observed risk preferences of energy hedging market participants. The resulting estimates are applied to derive explicit risk aversion based optimal hedge strategies for both short and long hedgers. Out-of-sample results are also presented based on a unique approach that allows us to forecast risk aversion, thereby estimating hedge strategies that address the potential future needs of energy hedgers. We find that the risk aversion based hedges differ significantly from simpler OLS hedges. When implemented in-sample, risk aversion hedges for short hedgers outperform the OLS hedge ratio in a utility based comparison.
(To request: email library@energylibrary.org.nz Ref: **0610-Hedge**)

Measuring the risk of financial transmission rights. Zhang, N. *Energy Risk*; May 2010, Vol. 7 (7), p.54-56, 58-60
(To request: email library@energylibrary.org.nz Ref: **0610-FTR**)

Elk River peaking plant does 0-to-150 MW in 10 minutes. Farmer, R. *Gas Turbine World*; Jan - Feb 2010 Vol. 40 (1), p.10-13
(To request: email library@energylibrary.org.nz Ref: **0610-Turbine**)

Evaluating intake filters: A five-step procedure for gas turbines. Wilcox, M. *Turbomachinery International*; Mar/Apr 2010, Vol. 51 (2), p.30,32
(To request: email library@energylibrary.org.nz Ref: **0610-Filters**)

Electrical Resistivity Imaging technique to delineate coal seam barrier thickness and demarcate water filled voids. N. S. Krishnamurthy et al. *Journal of the Geological Society of India*; May 2009. Vol. 73 (5), p.639-650
(To request: email library@energylibrary.org.nz Ref: **0610-Seam**)

Reliability assessment of safety instrumented systems in the oil and gas industry: A practical approach and a case study. Lundteigen, M. A.; Rausand, M. *International Journal of Reliability, Quality & Safety Engineering*; Apr 2009, Vol. 16 (2), p.187-212
(To request: email library@energylibrary.org.nz Ref: **0610-Oil**)

More efficient operation of coal fired power plants using nonlinear models. Bulsari, A. et al. *Energy & Environment*; 2010, Vol. 21 (3), p.291-300
Coal fired power plants should be operated in such a way that the emissions are kept clearly below desired limits and the combustion efficiency is as high as can be achieved. This requires a lot of quantitative knowledge of the effects of the process variables and fuel characteristics on the emissions and efficiency. Mathematical models can be developed with different approaches. Physical models are too slow to be used for on-line process guidance, and require too many assumptions and simplifications. It is feasible to develop empirical or semi-empirical models from normal production data of the power plant. This technical communication explains with an example of a coal fired power plant how nonlinear models are an effective means of determining the best operating conditions at any given load for a given type of coal.
(To request: email library@energylibrary.org.nz Ref: **0610-Coal**)

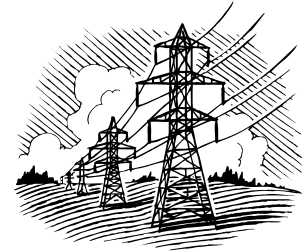
A holistic approach to structural integrity of high temperature welds in power plants. Hyde, T. H. et al. *Energy Materials*; Mar 2009, Vol. 4 (1), p.17-22
(To request: email library@energylibrary.org.nz Ref: **0610-Welds**)

Some characteristics of emerging distribution systems considering the Smart Grid Initiative. H. E. Brown et al. *The Electricity Journal*; Vol. 23 (5), June 2010, p.64-75
(To request: email library@energylibrary.org.nz Ref: **0610-Smart**)

Batteries included: Realizing smart grid goals with intelligent energy storage. Nourai, A.; Kearns, D. *IEEE Power & Energy Magazine*; Mar/Apr 2010 Vol. 8 (2), p.49-54
(To request: email library@energylibrary.org.nz Ref: **0610-Storage**)

Time-domain power system simulator as an efficient tool for teaching and learning electric power quality phenomena. Santoso, S. *Computer Applications in Engineering Education*; Jun 2009, Vol. 17 (2), p.214-224
(To request: email library@energylibrary.org.nz Ref: **0610-Quality**)

Tracing the unreliability contributions of power system components. Xie, K. *Electric Power Components & Systems*; Dec 2008, Vol. 36 (12), p.1299-1309
(To request: email library@energylibrary.org.nz Ref: **0610-System**)



Decision tree-based fault zone identification and fault classification in flexible AC transmissions-based transmission line. Samantaray, S. R. *IET Generation, Transmission & Distribution*; May 2009, Vol. 3 (5), p.425-436

Transmission line distance relaying for flexible AC transmission lines (FACTS) including thyristor controlled series compensator (TCSC), STATCOM, SVC and unified power flow controller (UPFC) has been a very challenging task. A new approach for fault zone identification and fault classification for TCSC and UPFC line using decision tree (DT) is presented. One cycle post fault current and voltage samples from the fault inception are used as input vectors against target output '1' for fault after TCSC/UPFC and '0' for fault before TCSC/UPFC for fault zone identification. Similarly, the DT-based classification algorithm takes one cycle data from fault inception of three phase currents along with zero-sequence current and voltage, and constructs the optimal DT for classifying all ten types of shunt faults in the transmission line fault process. The algorithm is tested on simulated fault data with wide variations in operating parameters of the power system network including noisy environment. The results indicate that the proposed method can reliably identify the fault zone and classify faults in the FACTS-based transmission line in large power network.

(To request: email library@energylibrary.org.nz Ref: **0610-Fault**)

Effect of power cable insulator for power line communication. Takato, K. et al. *Electrical Engineering in Japan*; Jun 2009, Vol. 167 (4), p.24-31
(To request: email library@energylibrary.org.nz Ref: **0610-Cable**)

Powerful force removes poles safely. *Energy Source & Distribution*; Mar/Apr 2010, p.26 (1p.)

This article reports on field-testing of the first PoleX machine from Redmond Gary Australia.

(To request: email library@energylibrary.org.nz Ref: **0610-Pole**)

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: Integrating Renewable Energy

Electricity market design for facilitating the integration of wind energy: Experience and prospects with the Australian National Electricity Market. I. MacGill. *Energy Policy*; Vol. 38 (7), July 2010, p.3180-3191
(To request: email library@energylibrary.org.nz Ref: **0610-Topic1**)

Overview of wind power intermittency impacts on power systems. M. H. Albadi; E. F. El-Saadany. *Electric Power Systems Research*; Vol. 80 (6), June 2010, p.627-632
(To request: email library@energylibrary.org.nz Ref: **0610-Topic2**)

Multi-objective optimization of a mixed renewable system with demand-side management. P. S. Moura; A. T. de Almeida. *Renewable and Sustainable Energy Reviews*; Vol.14 (5), June 2010, p.1461-1468
The 2001/77/CE European Commission Directive sets the target of 22% of gross electricity generation from renewables for the Europe, by 2010. In a scenario of large scale penetration of renewable production from wind and other intermittent resources, it is fundamental that the electric system has appropriate means to compensate the effects of the variability and randomness of the wind, solar and hydro power availability. The paper proposes a novel multi-objective method to optimize the mix of the renewable system maximizing its contribution to the peak load, while minimizing the combined intermittence, at a minimum cost. In such model the contribution of the large-scale demand-side management and demand response technologies are also considered.
(To request: email library@energylibrary.org.nz Ref: **0610-Topic3**)

Can the grid cope with a large expansion of renewables - a Cornish perspective. Billington, I. *Energy World*; Feb 2010 (379), p.20-21
With expansions of renewables such as wind and biomass in the pipeline for the UK, is the current electricity grid able to accommodate them? Dr Ian Billington shares his research and assesses the case for the Southwest.
(To request: email library@energylibrary.org.nz Ref: **0610-Topic4**)

Grid-connected photovoltaic power systems: Technical and potential problems—A review. M. A. Eltawil; Z. Zhao. *Renewable and Sustainable Energy Reviews*; Vol. (1), Jan 2010, p.112-129
(To request: email library@energylibrary.org.nz Ref: **0610-Topic5**)

Wind energy and power system operations: A review of wind integration studies to date. J. DeCesaro et al. *The Electricity Journal*; Vol. 22 (10), Dec 2009, p.34-43
(To request: email library@energylibrary.org.nz Ref: **0610-Topic6**)

Western Wind and Solar Integration Study – this May 2010 [study](#) was sponsored by the U.S. Department of Energy and run by NREL with WestConnect as a partner organization.

Featured Energy Event

Petroleum, oil and gas, geothermal and gas hydrates research: Update on the current minerals challenge. Alex Malahoff, Chief Executive Officer, GNS Science. Energy Federation lunchtime seminar (with EFNZ AGM), Thursday, 15th July 2010, Wellington.

More information and registration form on the EFNZ [website](#).

Please [email us](#) if you would like your event to be featured in the Energy Update.

Energy on the Web

New Zealand

Electricity Industry Bill – 9 June [report](#) back on the Electricity Industry Bill by the Finance and Expenditure Committee.

Electricity prices – this June *Consumer NZ* report is free [online](#).

Powersavers website - Track and reduce your energy usage on this [calculation tool](#) (this is a Powershop website but you don't have to be a Powershop customer to use it).

Commerce Commission releases draft decisions on individual price-quality path for Transpower - 28 June 2010 media [release](#).

Dam Safety Scheme Review: Report of findings of an independent review of the Dam Safety Scheme - [report](#) for the Department of Building and Housing.

Bioenergy options for New Zealand: Situation analysis – 2009 Scion [reports](#).

Wave energy device – discussion of the latest prototype on this Radio NZ National audio [file](#).

Designing a framework to monitor New Zealand's resources: Version 1 - Sustainable Future [report](#).

Wall retrofits in housing: Market potential and cost-benefits – BRANZ [report](#).

NZS 4218:2009 Calculation Method Tool – BRANZ [tool](#).

New Zealand Sustainable Building Conference – papers from this recent event are now [online](#).

Reform in paradise II: Environmental reform & the green economy - papers from this recent Environmental Defence Society conference are now [online](#).

Submission to EECA on the proposed changes to the EECA Energy Audit Grant Scheme – EMANZ [submission](#).



DR 10021, Safe working on or near low-voltage electrical installations and equipment (Revision of AS/NZS 4836:2001) - New Zealand draft [standard](#) for public comment.

DR3760 CP, In-service safety inspection and testing of electrical equipment - New Zealand draft [standard](#) for public comment.

Important facts about petroleum exploration - 28 June 2010 Beehive media [release](#).

APEC Energy Ministers' Meeting successful - 22 June Beehive [release](#).

EIANZ NZ Chapter May 2010 newsletter - click [here](#) to read the latest issue of the newsletter from the NZ Chapter of the Environment Institute of Australia and New Zealand.

International

CCS crucial for mitigating climate change - IEA [report](#).

Canadian Geothermal Energy Association member projects database
- May 2010 [publication](#).

Iceland geothermal energy market report 2010 - Íslandsbanki [report](#).

The Second Plank Update: A review of the contribution that energy efficiency in the buildings sector can make to greenhouse gas emissions abatement - [report](#) commissioned by the ASBEC Climate Change Taskgroup.

Benefits of advanced smart metering for demand response based control of distribution networks - [report](#) from Imperial College commissioned by ENA (UK)

Clean energy trends 2010 - Clean Edge [report](#).

Deploying renewables in Southeast Asian countries: Trends and potentials - IEA [report](#).

Labour shortages on horizon for oil and gas industry - Petroleum Human Resources Council of Canada [report](#).

The current and future role of technology and innovation centres in the UK - [report](#) by Dr. Hermann Hauser for Department for Business Innovation & Skills.

Sustainable energy security: Strategic risks and opportunities for business - Lloyd's [white paper](#).

Powering Ahead: 2010 - an outlook for renewable energy M&A - KPMG [report](#).

The Copenhagen Accord - A view of the work in progress - KPMG [report](#).



Clearcut disaster: Carbon loophole threatens U.S. forests - June 2010 Environmental Working Group biofuels [report](#). The Biomass Power Association responds to the report [here](#).

Biomass sustainability and carbon policy - Manomet [study](#) for the Massachusetts Department of Energy Resources. The Biomass Power Association [responded](#) to the report. Manomet noted the general reaction to their report and issued a follow-up [statement](#).

The economic value of wind to Wales – May 2010 RenewableUK [report](#).

Fuel for Thought (Energy chocolate competition)

To be in to win this month's block of Energy chocolate just [tell us](#) the answer to this question:



What is the title of the first book on our list of New Items for Loan in the Oct 2008 Energy Update? (Clue: the author is Thomas L. Friedman and the answer can be found [here](#)).

Draw closes 4pm Fri 16th July. Congratulations to Pete, who won last month's draw.

Other Services

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