

## Energy Update

September 2009

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*Kat McAra, Current Awareness Advisor*

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## New Items for Loan

**Wind energy generation: Modelling and control.** Olimpo AnayaLara; Nick Jenkins; Janaka Ekanayake; Phill Cartwright; Michael Hughes. Chichester: Wiley, 2009  
(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Loan1**)

**Security risk management body of knowledge (SRMBOK).** Talbot, Julian; Jakesman, Miles. (2nd. Ed) Hoboken, N.J: Wiley, 2009

This book provides a framework for formalizing risk management and guidelines for agreed better practice in security risk management. It has been developed to align with International Standards for Risk Management such as ISO 31000.

(To borrow this book email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Loan2**)

**AS/NZS 2381.1: 2005. Electrical equipment for explosive atmospheres: Selection, installation and maintenance: Part 1: General requirements.**

Incorporating amendments 1, 2 and 3

(To borrow this standard email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Loan3**)

**AS/NZS 61000.4.2: 2002. Electromagnetic compatibility (EMC) - Testing and measurement techniques - Electrostatic discharge immunity test.**

(To borrow this standard email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Loan4**)

**IEC 61109: 2008. Insulators for overhead lines: Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than 1000 V: Definitions, test methods and acceptance criteria.** 2nd edition.

(To borrow this standard email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Loan5**)

**IEC 61467: 2008. Insulators for overhead lines: Insulator strings and sets for lines with a nominal voltage greater than 1000 V - AC power arc tests.**

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## Special Journal Issues

**New Zealand Energy Strategy.** The September 2009 issue of *Energy Policy* has a special section containing 18 articles relevant to New Zealand's energy strategy. We've promoted the articles in recent updates but you can now borrow the print version of the whole journal. Some examples of articles in this issue:

- Economic efficiency of solar hot water policy in New Zealand
- Warm homes: Drivers of the demand for heating in the residential sector in New Zealand
- Efficiency improvement for geothermal power generation to meet summer peak demand
- Feasibility study into the potential for gasification plant in the New Zealand wood processing industry
- Carbon capture and storage: Fundamental thermodynamics and current technology
- Public perceptions of wind energy developments: Case studies from New Zealand
- Government procurement of peak capacity in the New Zealand electricity market
- SmartGrid: Future networks for New Zealand power systems incorporating distributed generation

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**Global Carbon 2009: A special report for Carbon Expo.** This special section in *Environmental Finance* (Vol. 10 no. 7, May 2009) contains 9 articles, including:

- Clean Development Mechanism: Counting on Copenhagen
- An uphill path (the Bonn climate talks – and the road to Copenhagen)
- EU ETS: Powering through the downturn
- International emissions trading: Carbon's new frontier
- US market: An eye on certainty
- Forestry: Playing REDD without losing your shirt

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## New Management, Marketing and HR Articles

**Performing sustainable development through eco-collaboration.** Livesey, Sharon M. et al. *Journal of Business Communication*; Oct 2009, Vol. 46 (4), p.423-454

This article describes a successful partnership between the agricultural industry and environmental advocates in California's Sacramento Valley.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Eco**)

**Death by information overload.** Hemp, Paul. *Harvard Business Review*; Vol. 87 (9) Sep 2009, p.82-89

The value of information in the knowledge economy is indisputable, but so is its capacity to overwhelm consumers of it. The author reports on practical ways for individuals and organizations to avoid getting too much of a good thing. Ready access to useful information comes at a cost: As the volume increases, the line between the worthwhile and the distracting starts to blur. And ready access to you -- via e-mail, social networking, and so on -- exacerbates the situation: On average, Intel executives get 300 e-mails a day, and Microsoft workers need 24 minutes to return to work after each e-mail interruption. Clearly, productivity is taking a hit. Technological aids can help, such as e-mail management software for you, a message-volume regulation system for your organization, or even more-sophisticated solutions being developed by Microsoft, IBM, and others. Yet, battling technological interruptions on their own turf only goes so far. You also need to change your mind-set, perhaps by seeking help from personal-productivity experts or by simply accepting that you can't respond to every distraction that flits across your screen. Similarly, organizations must change their cultures, for instance by establishing clear e-communication protocols.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Overload**)

**Everyone a team leader: Shared influence at W. L. Gore & Associates.** Charles C. Manz et al. *Organizational Dynamics*; Vol. 38 (3), Jul-Sep 2009, p.239-244

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Leader**)

**Working all hours.** Tullett, Sarah. *Occupational Safety and Health*; Jun 2009 Vol 39 (6), p.13-17

Shift work has health and safety implications.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Shift**)



**Green management matters regardless.** Marcus, Alfred A.; Fremeth, Adam R. *Academy of Management Perspectives*; Aug 2009, Vol. 23 (3), p.17-26

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Green**)

**Improve board performance: "Team" best practices.** Walton, Elise. *Corporate Board*; Mar 2009, Vol. 30 (175), p.5-10

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Board**)

**Arc blast hazards.** Kolak, John J. *Professional Safety*; Jun 2009 Vol. 54, (6), p.46-51

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Arc**)

**Gaining leadership skills from online games.** Reeves, Byron et al. *Engineers Australia*; Jul 2008, Vol. 80 (7), p.62,64-67

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Games**)

**The influence of satisfaction, perceived reputation and trust on a consumer's commitment to a website.** Casalo, Luis V. et al. *Journal of Marketing Communications*; Mar 2007, Vol. 13 (1), p.1-17

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Website**)

**Enterprise risk management: A best practice approach.** Francis, Sebastian; Paladino, Bob. *Journal of Corporate Accounting & Finance*; Mar/Apr 2008, Vol. 19 (3), p.19-33

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Risk**)

**Reducing job-irrelevant bias in performance appraisals: Compliance and beyond.** Wilson, Kathlyn Y.; Jones, Robert G. *Journal of General Management*; Winter 2008/2009, Vol. 34 (2), p.57-70

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Bias**)

**Leveraging HR and knowledge management in a challenging economy.** *HRMagazine*; Jun 2009, Vol. 54 (6), Special section p.1-9

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-HR**)

## New Energy and Environment Articles

**Gentailers take control.** Herold, John. *Electrical Technology*; Sep/Oct 2009, p.10-11

This article discusses the need for technology that will give New Zealanders more control over their electricity use. A hot water management system called EcoStat is described as an example of a technological innovation with benefits for consumers.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Gen**)

**Clearing the air.** Wrigglesworth, Karen. *E.NZ magazine*; May/June 2009 Vol. 10 (3), p.40-43

Local companies Opus International Consultants, Beca, and Tonkin and Taylor see environmentally focused business solutions as a vital component to future business health and profitability. The author asks how they're tackling the greenhouse gas issue.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Clear**)

**Going local.** McLeavy-Reville, Cian; Morgado, David. *Environmental Finance*; Feb 2009 Vol. 10 (4), p.36-37

Utilities are beginning to embrace the mantra 'think global – act local' – and decentralised energy technologies are poised to benefit. Energy storage and micro-CHP are discussed here.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Local**)

**Daylight metrics and energy savings.** J. Mardaljevic et al. *Lighting Research and Technology: Special issue: Good lighting with less energy*; Sep 2009. Vol. 41 (3), p. 261-283  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Day**)

**Energy efficiency for manufacturing industry in Canada.** Robinson, Bob; Wilson, Nevil. *Energy World*; May 2009 371p.16-17

The first step in industrial energy management is usually a study of existing technology, systems and behaviour at the site. Here, the authors of the UK-based Enviros Consulting describe their energy efficiency work for industry in Canada.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Canada**)

**Energy efficient and sustainable ancient museum buildings: a case study in Florence.**

Sala, Marco; Gallo, Paola. *International Journal of Sustainable Energy*; Jun 2007 Vol. 26 (2), p.61-78

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Florence**)

**Comparison of simulation and experimental data of a zero energy home in an arid climate.** Madeja, Robert; Moujaes, Samir. *Journal of Energy Engineering*; Sep 2008, Vol. 134 (3), p.102-108

In this study, a widely used software package, Trace 700 was used to simulate the energy consumption of the heating and cooling loads of two residential homes and compare them with their experimental values. One home is classified as a zero energy home (ZEH) and employs advanced construction features, which is designed to consume significantly less energy than a normal home. The baseline home is of the exact same dimensions and floor plan as the ZEH, but uses more traditional construction practices.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Zero**)

**The state of the global carbon trade debate.** Bond, Patrick.

*Capitalism, Nature, Socialism*; Dec 2008, Vol. 19 (4), p.89-106

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Trade**)



**Transportation strategies to mitigate climate change.** Batac, Tiffany; Lem, Lewison. *Leadership & Management in Engineering*; Jul 2008, Vol. 8 (3), p.124-131

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Transport**)

**Geyser decline and extinction in New Zealand: Energy development impacts and implications for environmental management.** Barrick, Kenneth. *Environmental Management*; Jun 2007, Vol. 39 (6), p.783-805

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Geyser**)

**Improvement of effectiveness of geothermal energy utilisation as a result of conversion from one to a multi loop power cycle.** Wiśniewski, Sławomir; Borsukiewicz-Gozdur, Aleksandra. *Archives of Thermodynamics*; 2008, Vol. 29 (4), p.205-214

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Geothermal**)

**Public perceptions of New Zealand freshwater and its management -- reconciling the science and management implications.** Hughey, K. F. D. et al. *Australasian Journal of Environmental Management*; Jun 2007, Vol. 14 (2), p.82-92

Responses from nationwide mail surveys are analysed to identify how New Zealanders assess the state of New Zealand lakes, rivers and streams, as well as perceived pressures on, and quality of management of, freshwater resources. In doing so, we identify significant differences between opinions of different demographic groupings. We then compare these perceptions with the state of freshwater in New Zealand based on biophysical scientific monitoring. Generally, public perception is consistent with biophysical scientific monitoring, suggesting perception surveys can be seen as a useful barometer of environmental performance. Research and management implications from these findings are discussed.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Water**)

**Sustainability of micro-hydrosystems: A case study.** Chhetri, A. B. et al. *Energy & Environment*; 2009, Vol. 20 (4), p567-585

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Hydro**)

**Cost and carbon savings from innovative conversion of agricultural residues.** Archer, A. et al. *Energy Sources Part B: Economics, Planning & Policy*; Jan 2008, Vol. 3 (1), p.103-108  
Discusses the economic and environmental benefits of using agricultural and forestry residues, energy crops, and other forms of lignocellulosic biomass for biofuels.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Biofuels**)

**Agriculture as energy?** Ferris, J. *Harvard International Review*; Summer 2009, Vol. 31 (2), p.44-49

Discusses the status of ethanol production and markets in the U.S as well as the legislation impacting on the sector.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Bioenergy**)

**Five into Severn may go.** Leonard Sanford. *Modern Power Systems*; Vol. 29 (3), Mar 2009, p.36-39.

Describes research into tidal power in the Severn estuary in Great Britain.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Tidal**)

**Models for determination of solar energy potential.** Bakirci, Kadir. *Energy Exploration & Exploitation*; Oct 2008, Vol. 26 (5), p.281-292

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Solar**)

**Everything in a box.** Meyer, Jens Peter. *Sun & Wind Energy*; 4/2009, p.50-56,58-60,62-63

An article about trends and developments in solar circulation unit technology.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Box**)

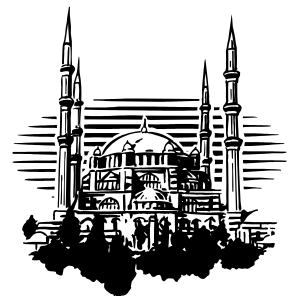
**Numerical modeling on the performance of aquifer thermal energy storage system under cyclic flow regime.** K. S. Lee; S. J. Jeong. *International Journal of Green Energy*; 2008, Vol. 5 (1/2), p.1-14  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Storage**)

**Natural gas distribution in Italy: When competition does not help the market.** Susanna Dorigoni; Sergio Portatadino. *Utilities Policy*; Vol. 17 (3-4) Sept-Dec 2009, p.245-257  
In this article consequences of the introduction of competition for the field in the Italian natural gas distribution sector are analyzed.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Gas**)

**Visakhapatnam underground LPG storage cavern, India.** Raghavan, N. et al. *Institution of Civil Engineers. Proceedings - Energy*; May 2007 Vol. 160 (2), p.79-86  
One of the world's deepest underground liquefied petroleum gas (LPG) storage cavern projects has been built near the city of Visakhapatnam in India. Storage is based on the hydraulic containment principle using water pressure. This paper discusses the design aspects and various phases involved in construction. Abstract excerpt reprinted with the permission of Thomas Telford Limited: [http://www.ice.org.uk/services/services\\_journals.asp](http://www.ice.org.uk/services/services_journals.asp)  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-LNG**)

**Converting liquid fuels to gas for standard DLE combustion.** Day, Bill. *Gas Turbine World*; May-June 2008 Vol. 38 (3), p.28-31  
This article discusses the conversion of liquid fuels (e.g. distillate, biodiesel, coal-derived naphtha) to gas for standard dry low emissions (DLE) combustion.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-DLE**)

**Turkey's major lignite fields and significance of lignite for energy necessity.** Balat, M. *Energy Sources Part B: Economics, Planning & Policy*; Jan 2008, Vol. 3 (1), p.13-25  
The objective of this study is to determine the lignite use for Turkey's energy necessity. Lignite is the most important energy resource of Turkey when compared with others according to the amount of reserves. Lignite is the dominant source of energy produced (43%) in Turkey. Lignite deposits are encountered in almost every region of Turkey. Total lignite reserves are estimated at 8,375 million tons, of which 7,340 million tons (88%) is economically feasible. Share of lignite reserves of Turkey are 2% in the world. Lignite deposits are encountered in almost every region of Turkey. Afsin-Elbistan, Mugla, Soma, Tuncbilek, Seyitomer, Beypazari and Sivas basins constitutes the most important known lignite reserves. The biggest lignite deposits, 40% of the total, are in Afsin-Elbistan. Lignite extraction is expected to increase as the government feels pressure to close down unprofitable hard coal mines that are geologically difficult, increasing the cost of extraction.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Lignite**)



**Utilization of coal fly ash from power plants II. Geopolymer obtaining.** Harja, Maria et al. *Environmental Engineering & Management Journal*; May/Jun 2009, Vol. 8 (3), p.513-520  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Ash**)

**Smart metering in Brazil: Perspectives and challenges.** Lamin, Hugo et al. *Metering International*; 2/2009, p.58-59

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Metering**)

**Piloting the smart grid.** Ahmad Faruqi et al. *The Electricity Journal*; Vol 22 (7), Aug-Sept 2009, p.55-69

To address the likely impact of the smart grid on customers, utilities, and society as a whole, it may be necessary to conduct a pilot. When should a pilot be conducted and how should it be conducted? What validity criteria should the pilot satisfy? Here are issues to consider.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Smart**)

**Economic criteria for evaluating demand side management measures in the context of electricity sector regulation.** Apolinário, I. et al. *Minerals & Energy*; Sep 2007 Vol. 22 (3/4) p.135-147

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-DSM**)

**Variational inequalities for solving possibilistic risk-averse electricity market equilibrium.** Campos, F. A. et al. *IET Generation, Transmission & Distribution*; Sep 2008, Vol. 2 (5), p.632-645

It is widely known and accepted that Nash equilibrium suitably models agents' behavior in electricity markets, since it is coherent with the common sense of their simultaneous profits maximisation. In the literature, these approaches are usually addressed using deterministic representations, despite the fact that electricity markets are highly conditioned by the uncertainty in demand or in agents' bidding strategies. Only some equilibrium-modelling approaches under uncertainty can be found in the literature, most of them using probability distributions. However, probability approaches may lead to very complex formulations and generally require restrictive assumptions (such as normality or independence) that can hardly be verified in real complex problems. A conjectured-price-response equilibrium model that uses LR-possibility distributions to represent the uncertainty of the residual demand curves faced by the participant agents is proposed. Modelling the risk-aversion attitudes of the agents, the resulting possibilistic equilibrium is transformed into a simplified deterministic one, which is solved with a new globally convergent algorithm for variational inequalities problems. Some interesting results for a real-size electricity system show the robustness of this new approach when compared with other risk-neutral approaches.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Risk**)

**Optimal bidding strategy of power generating companies with consideration of load forecast uncertainty.** Akbari, S. et al. *Journal of Applied Sciences*; 2009 Vol. 9 (12) p.2218-2227

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Bid**)

**Valuing generation assets: Overview and spark-spread option valuation.** Clewlow, Les et al. *Energy Risk*; Jun 2009 Vol 6 (8), p.76-81

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Valuing**)

**Power quality and electrical reliability: Where does the responsibility lie?** Roger Lawrence. *Energy Engineering*; 2009 Vol. 106 (6), p.23-28,31-33  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Quality**)

**An analytical approach for assessment of voltage sags.** Arup Kumar Goswami et al. *International Journal of Electrical Power & Energy Systems*; Vol. 31 (7-8) Sept 2009 p.418-426  
In this paper, analytical expressions for the calculation of remaining voltages due to fault at bus and along the line are derived. Balanced and unbalanced faults are considered and the effects of different fault distributions are taken into account. The proposed analytical methods are compared with the method of critical distance in order to achieve the acceptability of the proposed method. The developed method is applied to the IEEE 30-bus test system and a real Indian distribution system.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Sags**)



**How IEC 61850 can widen the unified control zone.** Orth, Joerg. *Modern Power Systems*; Jun 2009, Vol. 29 (6), p 33-36  
IEC 61850 is a standard for Communication networks and systems in substations.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Substations**)

**Efficiency optimisation of gas turbine based cogeneration cycle.** Yilmaz, T. et al. *Journal of the Energy Institute*; Jun 2008, Vol. 81 (2), p.110-113  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Turbine**)

**Real-time fault diagnostic system for a steam turbine generator set by using a fuzzy cerebellar model articulation controller.** Yan, C. et al. *Proceedings of the Institution of Mechanical Engineers: Part C Journal of Mechanical Engineering Science*; Vol. 223 (5) 2009, p.1253-1262  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Fault**)

**Technological breakthroughs and asset replacement.** Yuri Yatsenko; Natali Hritonenko. *Engineering Economist*; Vol 54 (2), 2009, p.81-100  
The authors investigate the dynamics of optimal replacement of an asset under continuous and discontinuous technological change.  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Asset**)

**Optimisation of wind turbine inspection intervals.** Andrawus, Jesse A. et al. *Wind Engineering*; Sep 2008, Vol. 32 (5), p.477-490  
(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Inspection**)

**The odd couple: Renewables and transmission** – This July *Power* article is [online](#).

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## Special Topic: Incentivising Renewable Energy

### **Electricity market participation of wind farms: the success story of the Spanish pragmatism.** Juan Rivier Abbad. *Energy Policy*; Article in Press (2009)

In the last 10 years, more than 15 GW of wind power have been installed in Spain, of which more than 3.5 GW in 2007. Furthermore, plans are to reach 20 GW by 2010 and there are expectations of an installed capacity exceeding 40 GW by 2020. This article will present the innovative solutions for technical and economical integration that allowed it to reach such high level wind penetration objectives (the system peaks at around 44 GW and is almost isolated). It will be described how the regulation has evolved from a pure Feed-in-Tariff to a market+premium option, where technical and economic integration has been a priority. Today, approximately 97% of installed wind capacity accesses the Spanish wholesale electricity market. Market integration has been crucial, sending the correct signals to participants to look for the optimum technical solutions. Technical improvements have come from both wind power producers and the system operator (specific control centre dedicated to Renewable Energy Sources (RES), new security analysis tools, gaining technical confidence of wind capabilities).

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### **Which renewable energy policy is a venture capitalist's best friend? Empirical evidence from a survey of international cleantech investors.**

Mary Jean Bürer; Rolf Wüstenhagen. *Energy Policy*; Article in Press (2009)

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic2**)



### **The expansion of electricity generation from renewable energies in Germany: A review based on the Renewable Energy Sources Act Progress Report 2007 and the new German feed-in legislation.** Uwe Büsgen; Wolfhart Dürschmidt. *Energy Policy*; Vol. 37 (7), July 2009, p.2536-2545

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic3**)

### **Implementation of feed-in tariffs into multi-energy systems.** Schulze, M.; Del Granado, P. Crespo. *Proceedings of World Academy of Science: Engineering & Technology*; May 2009, Vol. 41, p.1004-1009

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic4**)

### **The importance of comprehensiveness in renewable electricity and energy-efficiency policy.** Benjamin K. Sovacool. *Energy Policy*; Vol. 37 (4), April 2009, p.1529-1541

Based on extensive research interviews and supplemented with a review of the academic literature, this article assesses the best way to promote renewable energy and energy efficiency. It begins by briefly laying out why government intervention is needed, and then details the four most favored policy mechanisms identified by participants: eliminating subsidies for conventional and mature electricity technologies, pricing electricity accurately, passing a national feed-in tariff, and implementing a nationwide systems benefit fund to raise public awareness, protect lower income households, and administer demand side management programs. Drawing mostly from case studies in the United States, the article also discusses why these policy mechanisms must be implemented comprehensively, not individually, if the barriers to renewables and energy efficiency are to be overcome.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic5**)

**An assessment of the Greek incentives scheme for photovoltaics.** A.M. Papadopoulos; M.M. Karteris. *Energy Policy*; Vol. 37 (5), May 2009, p.1945-1952

After two years of elaboration a new legislation was enacted in 2006 in Greece, providing an appealing feed-in tariff (FiT) scheme for photovoltaics (PVs). The response of the market was immediate with more than 7947 licenses having been submitted in less than 2 years' time. The effectiveness however of an incentives' scheme cannot be judged solely by the response of prospective investors. Aim of this paper is to present and discuss a quantitative assessment of this newly introduced FiT law in Greece, with respect to its attractiveness to investors, its effectiveness towards launching a new market, its cost efficiency and its ability to lift non-economic barriers that led to significant delays in the diffusion of RES over the last 10 years.

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic6**)

**The power of the feed-in tariff.** Johns, Jonathan. *Modern Power Systems*; Dec 2008, Vol. 28 (12), p.31-31 (1p.)

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic7**)

**European renewable energy policy at crossroads: Focus on electricity support mechanisms.** Doerte Fouquet; Thomas B. Johansson. *Energy Policy*; Vol. 36 (11), Nov 2008, p.4079-4092

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic8**)

**Tariffs can be structured to encourage photovoltaic energy.** Wisser, Ryan et al. *Natural Gas & Electricity*; Aug 2008, Vol. 25 (1), p.18-24

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic9**)

**Mandating market access for renewable energies in Australia.** Carleton, Alexandra L. *Journal of Energy & Natural Resources Law*; Aug 2008, Vol. 26 (3), p.402-417

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic10**)

**Analysing preferences towards economic incentives in combating climate change: A comparative analysis of US states.** Ciocirlan, Cristina E. *Climate Policy*; 2008, Vol. 8 (6), p.548-568

(To request: email [library@energylibrary.org.nz](mailto:library@energylibrary.org.nz) Ref: **0909-Topic11**)

### **Incentivising renewable energy: 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](mailto:library@energylibrary.org.nz) with the **Ref: 0909-Biblio**.

**REFIT-NZ submission on Ministerial Review of Electricity Market Performance** – submission [document](#).

**Feed-in tariffs strengthen markets for biogas power** – online 2009 *BioCycle* [article](#).

## Featured Event: Biennial NZ Oil & Gas Outlook 2009

This year's topical and compelling agenda brings critical industry issues to the forefront. Bringing some of the influential decision makers from the region together which means you can network with your peers, meet policy makers and catch up with the news and movements of people in this industry as well as share best practices and opinions.

Date: 17th and 18th November. Place: Wellington. More details are on the Conferenz [website](#).

## Energy on the Web

### New Zealand

**New Zealand Clean Energy Centre (NZCEC)** – [website](#).

**Infrastructure: Facts and issues** – National Infrastructure Unit discussion [document](#).

**AMI and interim metering compliance** – Electricity Commission discussion [document](#).

**Electricity Engineers' Association (EEA) Conference** - 2009 [presentations](#).

**Fifth Annual Gas Industry Co Industry Conference** - 2009 [presentations](#).

**Capturing carbon dioxide** - 3 Sept Radio New Zealand National [audio file](#).

**Printing solar cells with novel materials** - 10 Sept Radio New Zealand National [audio file](#).

**2009 Grid Upgrade Plan** - Sept 2009 Transpower [report](#).

**Review of the Emissions Trading Scheme and related matters** – Aug 2009 [report](#) of the Emissions Trading Scheme Review Committee.

**Strong sustainability for New Zealand** - Sustainable Aotearoa New Zealand (SANZ) [report](#).

### International

**Ecological footprint standards 2009** – 2009 Global Footprint Network [standards document](#).

**Ofgem restructured to meet low carbon challenge** – Sept 2009 Ofgem [press release](#).

**Geothermal Energy Expo 2009** – Oct 2009 Geothermal Energy Association [webcast](#).

**Clean Energy Patent Growth Index (CEPGI)** – quarterly [index](#).

**Pay as you save: Financing low energy refurbishment in housing** - Aug 2009 UK Green Building Council [report](#).

**Smart networks position paper** - Sept 2009 ENA (Australia) discussion [document](#).



**Review of National Framework for Electricity Distribution Network Planning and Expansion** – 2009 Australia Energy Market Commission (AEMC) final [report](#).

**Carbon Assessment of the 2010-11 Draft Budget** - 2009 Scottish Government [report](#).

**G20 low carbon competitiveness** - Sept 2009 Climate Institute / E3G [report](#).

**The climate risk challenge: The role of insurance in pricing climate-related risks** - 2009 Zurich Financial Services Group [report](#).

**Cutting the cost: The economic benefits of collaborative action on climate change** - Sept 2009 Climate Group (Office of Tony Blair) [report](#).

**Preliminary Assessment of the Value of a new 275 kV Transmission line to connect Geothermal Resources to the NEM in South Australia** - Sept 2009 Australian Geothermal Association [report](#). (Website link: "MMA Report re Transmission for Geothermal Power in SA").

**Who owns our low carbon future? Intellectual property and energy technologies** - Sept 2009 Chatham House [report](#).

**World Development Report 2010: Development and Climate Change** – World Bank [report](#). (Advance Press Edition, still subject to final changes)

**Energy efficiency in the American Clean Energy and Security Act of 2009: Impacts of current provisions and opportunities to enhance the legislation** - ACEEE [report](#).

**Annual review of regulatory burdens on business - Social and economic infrastructure services** – Aug 2009 Australian Government [report](#).

**Fewer emitters, lower emissions, less cost: Reducing future carbon emissions by investing in family planning. A cost/ benefit analysis** - Aug 2009 London School of Economics [report](#) commissioned by the Optimum Population Trust.

## Fuel for Thought

Has reading the Update made you hungry? Need some energy?

For this month's competition all you have to do is tell us why you deserve the king size block of Energy chocolate. (Hint: we enjoy a good laugh so the funnier your reason is the better chance you have).

[Email](#) us your reason before 4pm Fri 16<sup>th</sup> October to be in to win. Congratulations to Don, who was the winner of last month's competition.

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