

Engineering Update November 2006

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Project Management/Cost Management/Financing/Alliances and Partnerships

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infrastructure/structural/geotechnical, water and wastewater, pollution,
environment,planning.

Selections from our book collection

Giveaways

Feature Focus on stadiums and financing

Have public finance principles been shut out in financing new stadiums for the NFL
Baade, Robert A and Matheson, Victor A. Public Finance & Management, Volume 6 Issue 3
(September 2006) Pages 284-320.

Reviews funding for stadiums, and notes that since 1992 there is an increasing use of an option to apply visitor taxes to raise funds. These are generally hotel and car rental taxes. This reliance on persons living outside the area is not fair nor efficient.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Stad1))

Public vs private spending for sports facilities -the case of Germany 2006.

Rebeggiani, Luca: Public Finance & Management, Volume 6 Issue 3 (September 2006) Pages 395-435

Reviews the various private and public funding options for sports facilities and gives an in depth analysis of the financing for the FOFA World Championship 2006 venues.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Stad2)

Critical success factors of the BOOT procurement system: reflections from the Stadium Australia case study.

Jefferies, Marcus_. Engineering Construction & Architectural Management, Volume. 9 Issue 4 (2002) Pages 352-361.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Stad3)

Economic and fiscal impacts of mega sporting events : a general equilibrium assessment.

Madden, John R. Public Finance & Management; Sep2006, Volume 6 Issue 3, (2006) Pages 346-394

Uses the Sydney 2000 summer olympics as a case study to model the financial and economic impacts of mega sports events.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Stad4)

A level playing field? Sports stadium infrastructure and urban development in the United kingdom.

Calvin Jones. Environment and Planning A, Volume33 (2001) Pages 845-861

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Stad5)

Bibliography on stadiums and sports facilities : financial and economic aspects /Prepared by Energy Library. 2006.

To request a copy of this bibliography email library@energylibrary.org.nz and quote Ref: ENG01Stad6)

Project Management / Cost Management / Financing / Alliances and Partnerships

Risk analysis strategies in the water utility sector: an inventory of applications for making better and more credible decision making.

B.H. MacGillivray, P.D. Hamilton and J.E.Strutt.

Critical Reviews in Environmental Science and Technology, Volume 36 (2006) Pages 85-139

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Risk)

Is debt replacing equity in regulated privatised infrastructure in LDCs?

Utilities Policy, Volume 14 Issue 2 (2006) Pages 90-102

Describes the financing structure of regulated privatised utilities and transport companies.

Reviews 121 utilities distributed over 16 countries, of 23 transport infrastructure operators and service operators distributed over 23 countries.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Debt)

Cooperative contracting on major engineering and construction projects

Berends, T. C. Engineering Economist; 2006, Vol. 51 Issue 1, p35-51

Discusses case studies in the oil, gas and petroleum industries.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Bernds))

Revitalizing project controls: A roadmap to excellence

Michalak, Christopher F. AACE International Transactions, (2006) P2.1-2.8

AACE International Transactions; CSC.02.1(2006), p2.1-2.

Efforts to establish a leading position in project management performance. Case study in the energy industry.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Michalak)

Visualizing stakeholder influence - two Australian examples.

Lynda Bourne and Derek H.T.Walker. Project Management Journal, Volume 37, Issue 1 (2006) Pages 5-21.

This paper introduces and illustrates a tool for measuring and visualizing stakeholder influences on managing projects drawing upon two case study examples.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Bourne)

How to create a world class project management organization.

Nick J. Lavingia. AACE International Transactions (2006) Pages PM01-PM05

The five steps in creating a world class project management organization are common language, structured project development and execution process, application of value improving and best practices, total cost management and training and certification

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01How)

Improved PFI/PPP service outcomes through the integration of Alliance principles

C. Clifton and C.F. Duffield. International Journal of Project Management, Volume 24, Issue 7 (2006) Pages 573-586.

Comparisons from infrastructure projects in Australia exploring the management of PFI/PPP projects (private finance initiatives/public private partnership). Includes investigation of contract structure, risk management, successful governance.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Clifton)

Stakeholder management for public private partnerships

N.M.Gohary, H.Osman and T.E.El-Diraby. International Journal of Project Management, Volume 24, Issue 7 (2006) Pages 595-604.

A semantic model and taxonomy for key concepts relating to stakeholder involvement in (PPP) public private partnership projects. Many projects have failed because of stakeholder opposition. A good system of capturing and addressing their inputs is crucial to the success of these projects.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Gohary)

A two-way influence between business strategy and project management

Srivannaboon, S., Milosevic, D.Z. International Journal of Project Management, Volume 24 Issue 6 (2006) Pages 493-505.

This article recognizes the strategic importance of project management (PM) in the corporate world through an exploration of PM/business strategy alignment. Using a case-study methodology, it extensively examines eight case studies covering nine projects in seven organizations.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Two)

Effective cost management - back to basics

R.L.Tichacek. Cost Engineering, Volume 48, Issue 3 (2006) Pages 27-33.

The most visible metric for measuring the success of a project is cost. This article discusses project management and project control to ensure this is highly sought after resource is properly managed.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Tichacek)

A construction cost contingency tracking system (CTS)

J.F.Rowe. Cost Engineering, Volume 48, Issue 2 (2006) Pages 31-37.

This system has been successfully tested on a 1.4 billion rail and highway improvement programme. It can be used to assess the project overall budget health and provide early warning for budget overruns.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Rowe)

Project scope management

Asadullah Khan. Cost Engineering, Volume 47, Issue 6 (2006) Pages 12-16

Managing the scope of a project is the most important function of a project manager. Effective scope management of a project also ensures the successful management of other key project management areas, including time, cost, and quality. Project scope management can be further sub-divided into its components which include project initiation, scope planning, scope definition, scope verification, and scope change control.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG0Khan Sriva)

Project documents and how they influence damages

Patrick Steven Ray. 2006 AACE International Transactions. CDR.03 p1-4

Report on litigation case in the US

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Ray)

Management / Leadership / Strategic Planning/ Recruitment/Training and Development

How well-run boards make decisions.

Useem, Michael. Harvard Business Review, Volume 84 Issue 11 (2006) Pages 130-138.

The author interviewed top management and board members from 31 companies and reviewed boardroom decisions and identified some formal processes that can assist the improvement of a companies decision making.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Useem)

Talent Management: from hire to retire

Laff, Michael. T+D, Volume 60 Issue 11 (2006) Pages 42-48.

Key issues to review when developing a talent management plan for your organization.

(To request this article email library@energylibrary.org.nz Ref:ENG01Laff)

The Human Factor I: Attracting, Retaining, and Motivating Capable People.

Minnesh Kaliprasad. Cost Engineering, Volume 48, Issue 6 (Jun2006) Pages 20-26.

In a recent survey, 47 percent of CEOs of the companies surveyed believed that the greatest challenge in the new economy is finding and retaining good people. Effectively managed staff are also said to be comfortable within the organization and usually believe they own the business. This is when their commitment and loyalty are at its highest and therefore they rarely try to find a way to depart from the organization.

(To request this article email library@energylibrary.org.nz Ref:ENG01Human1)

The Human Factor II: Creating a High Performance Culture in an Organization

Minnesh Kaliprasad, Cost Engineering, Volume 48, Issue 6 (2006) Pages 27-34.

Discusses the obstacles to sustaining high performance in an organization and what contributes to organizational culture. It is noted that there are financial implications to having a high performance culture. The value of establishing a culture of business excellence is highlighted, with teamwork, global thinking and dynamic leadership being key issues. Five key success factors in sustaining a high performance culture are outlined.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Human2)

How to keep "A players" productive

S. Berglas. Harvard Business Review, Volume 84 Issue 9 (2006) Pages 104-112.

An "A player" is someone who is regarded as one of the firm's most gifted and productive employees. This article discusses how to make sure these stars are achieving their potential

(To request this article email library@energylibrary.org.nz and quote Ref: ENG01Berglas)

Rate Your "B.O.S.S.": Benchmarking Organizational Safety Strategy

Hansen, Larry. Professional Safety, Volume 51 Issue 11 (2006) Pages 50-57.

Many go ahead companies initiate benchmarking to identify and target areas that need improvement. Reprint of article which was published earlier.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Hansen)

Technical aspects of engineering including --building services/infrastructure/structural/geotechnical/water and wastewater, pollution and environment/planning

Using waste to reduce slope erosion on road embankments.

J.de Oria and F. Osorio. Proceedings of the Institution of Civil Engineers: Transport, Volume 159 Issue TR1 (2006) Pages 15-24.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Using)

Geographic information system based roadway construction planning

Jongwon Seo. Canadian Journal of Civil Engineering, Volume 33 Issue 5 (2006) Pages 508-520.
(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Seo)

Significance of bearing capacity of clayey subgrade in flexible pavement design

Satyanarayana Reddy. International Journal of Pavement Engineering; Sep2005, Volume. 6 Issue 3, (2005) Pages183-189.

Interaction between structural and geotechnical engineers.

Burland, John. The Structural Engineer, Volume 84 Issue 8 (2006) Pages 19-20.
(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Burland)

Milwaukee, WI, USA's Summerfest Advanced Parking Guidance System

Chris J Fornal and others. Institute of Transportation Engineers. ITE Journal, Volume 76 Issue 6 (2006) Pages 34,41-44.

An annual series of concerts and events poses challenges for parking and traffic congestion. Using a Congestion Mitigation and Air Quality grant, an advanced information system for parking was implemented which provides information on available parking and alternative public transport options.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Fornal)

Development of the 2004 Canadian Standards Association (CSA) A23.3 shear provisions for reinforced concrete

Evan C Bentz; Michael P Collins. Canadian Journal of Civil Engineering, Volume 33 Issue 5 (2006) Pages 521-534.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Bentz)

Comparing footfall induced floor vibrations on different types of floor structure.

Peter Young and Michael Willford. The Structural Engineer, Volume 84 Issue 8 (2006) Pages 19-20.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Young)

A new breakwater system with suction piles.

Sangchul Bang and others. Sea Technology, Volume 47 Issue 4 (2006) Pages 15-19,21,23.

Use of suction piles for the foundation of a new gravity-type concrete caisson breakwater system.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Sangchul)

Disaster Preparedness: Limitations in Federal Evacuation Assistance for Health Facilities Should be Addressed. U.S. Government Accountability Office, 2006. (GAO-06-826)

Reviews difficulties experienced during Hurricane Katrina and makes recommendations.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Disaster)

The federal response to Hurricane Katrina : lessons learned. - Townsend, Frances Frago - 2006.

Link to resource: <http://www.whitehouse.gov/reports/katrina-lessons-learned/>

Field Performance of Concrete Repair Systems on Highway Bridge

Daniel Cusson and others.. ACI Materials Journal, Volume 103 Issue 5 (2006) Pages 366-379.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Cusson)

Life cycle cost analysis of a concrete road bridge across open sea.

R. Bhaskaran and others. Materials Performance, Volume 45 Issue 10 (2006) Pages 51-55.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Bhaskaran)

Designing and building for the class of 2020.

Building Design and Construction, Volume Issue (2006) Pages 24-38.

Suggests the need to incorporate some radical changes when designing university education facilities for the future

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Designing)

Premature water side corrosion of furnace wall tubes in a high pressure boiler.

Materials Performance, Volume 45 Issue 9 (2006) Pages 44-

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Premature)

Undersea LNG Pipeline Span Investigation : Using Deep-Towed Side Scan Sonar to Determine the Height Span of an Undersea Pipeline

Pei-Kun Liu, Gwo-Shyh Song. Sea Technology, Volume 47 Issue 7 (2006).Pages 41-

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Liu)

A geotechnical classification system for coal ashes.

K. Prakash. Proceedings of the Institution of Civil Engineers :Geotechnical engineering, Volume 159 Issue GE2 (2006) Pages 91-98.

The current soil classification systems do not cater for fly ash which is sometimes used in geotechnical applications. This paper proposes a system and gives illustrative examples.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Prakash)

Modelling sewer failure by evolutionary computing.

D.Savic and others. Proceedings of the Institution of Civil Engineers Water Management, Volume 159 Issue WM2 (2006) Pages 111-117.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Savic)

Waste not, water not.

Teresa Hansen. Power engineering, Volume 110 Issue 9 (2006) Pages 40,42,43.

Describes a power plant that has zero liquid discharge and advanced water treatment systems and saves up to 2 million gallons of portable water a day.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Hansen)

Air entrainment and oxygen transfer in high-head gated conduits.

Ozkan, F. Proceedings of the Institution of Civil Engineers, Water Management, Volume 159 Issue WM2 (2006) Pages 139-143

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Ozkan)

Crystalline Hydrrous Ferric Oxide: An Adsorbent for Chromium(VI)-Contaminated Industrial Wastewater Treatment

Saswati Goswami and others. Water Environment Research, Volume 798 Issue (2006) Pages 986-

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Goswami)

Reducing the reliance on landfill in England. National Audit Office, 2006.

Link to resource: http://www.nao.org.uk/publications/nao_reports/05-06/05061177.pdf

Policies for Strengthening Markets for Recyclables: A Worldwide Perspective

Daniel H Loughlin, Morton A Barlaz. Critical Reviews in Environmental Science and Technology. Boca Raton: 2006. Vol. 36, Iss. 4; pg. 287, 40 pgs

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Goswami)

Transport impacts of household waste recycling centres.

S.J. Maynard and T. Cherrett. . Proceedings of the Institution of Civil Engineers, Waste and Resource Management, Volume 159 Issue WR1 (2006) Pages 13-21.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Goswami)

Development of a Three-Stage System for Wastewater Toxicity Monitoring: A Design and Feasibility Study

Shijin Ren, Paul D Frymier. Water Environment Research, Volume 78 Issue 9 (2006) Pages 965-

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Ren)

Integrated risk framework for onsite wastewater treatment systems.

Steven Carroll and others. Environmental Management, Volume 39 Issue 2 (2006) Pages 286-303.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Carroll)

Air emission inventories in North America: a critical assessment.

C Andrew Miller and others. Journal of the Air&Waste Management Association, Volume 56 Issue 8 (2006) Pages 1115-

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Miller)

Facility risk assessments.

Schultz, Carl C. Engineered Systems; Oct2006, Vol. 23 Issue 10, p37-48,

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Schultz)

Pressure management in health care facilities

Andrew J. Streifel. HPAC Heating, Piping, Air Conditioning Engineering August 2006. Pages 36-40.

Management of air pressure is a key factor in controlling spread of infection and hazardous particles in a hospital.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Streifel)

Smoke Control In Health Care Facilities

Banse, J. Patrick. Engineered Systems, Volume 23 Issue 8 (2006) Pages31-40.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Bamse)

Design-build failures involving geothermal systems

Lotz, W.A. HPAC Heating, Piping, Air Conditioning Engineering, Volume 78 Issue 9 (2006) Pages. 56-60.

Discusses a geothermal heating and cooling building installation, that went wrong. (To request this article email library@energylibrary.org.nz and quote Ref:ENG01Lotz)

Hybrid geothermal heat pumps for Beachfront Hotel

Barfield, A. ASHRAE Journal, Volume 48 Issue 9 (2006) Pages 48-52,55
(2006) *ASHRAE Journal*, 48 (9), pp. 48-52+55.

(For (To request this article email library@energylibrary.org.nz and quote Ref:ENG01Barfield)

Sealing the Cracks in IAQ

David J. Odam and George Debose. Consulting specifying engineer, Volume 40 Issue 3 (2006) Pages 62-66

Extract from "Commissioning buildings in hot, humid climates: design and construction Guidelines. Part of a series of articles on fundamentals.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Sealing)

Optimizing building HVAC through data and costs

Cmar, G., Gnerre, W.P. Energy Engineering:Journal of the Association of Energy Engineering, Volume 104 Issue 4 (2006) Pages 19-41.

Uses a case study from a large hospital.

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Cmar)

Advanced controls for commercial buildings: Barriers and energy savings potential

Roth, K.W. and others. Energy Engineering :Journal of the Association of Energy Engineering, Volume 104 Issue 6 (2006) Pages 6-36

(To request this article email library@energylibrary.org.nz and quote Ref:ENG01Roth)

Selections from our book collection

Why Most Things Fail: Evolution, Extinction and Economics, Ormerod, Paul, Faber and Faber, 2005. Looks at economics from an evolutionary perspective, linking into the history of economics and systems theory.

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Why)

Blink: The Power of Thinking without Thinking, Malcolm Gladwell, London, 2005 Explores the idea of intuitive thinking and split second decisions.

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Gladwell)

Handbook on mechanical works inspection : a guide to effective practice

Clifford Matthews. Mechanical Engineering Publications, 1997

Provides the techniques, guidelines and technical data needed to perform inspections on mechanical equipment found in power and process plant applications.

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Matt1)

Value engineering: practical applications... for design, construction, maintenance and operations.. Alphonse J. Dell'Isola. RSMears, 1997

Includes case studies

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Alphonse)

Clear your desk! Declan Treacy, London, 1991.

Subtitled "The definitive guide to conquering your paper workload - forever!" this book has to be useful for those who are engaged in a constant battle with paperwork. Full of practical ideas and solutions, this is a quick and sensible book to read ... just don't lose it on your desk!.

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Treacy)

Organizing genius: the secrets of creative collaboration. Bennis, W, Biederman, P.W. Reading, Mass.: Addison-Wesley. 1997.

(To borrow this book email library@energylibrary.org.nz Ref:ENG01Biederman)

Walls for water pioneer dam building in New Zealand.

R.E. Offer. Dunmore Press, 1997.

Records the history of New Zealand's first hundred years of dam building.

(To borrow this book email library@energylibrary.org.nz and quote Ref:ENG01Dam)

Giveaways

1. IPENZ has kindly donated copies of the following publication to give away

"Power from Waikaremoana: a history of Waikaremoana hydro-electric power development / G.G. Natusch. Published in 1992.

Note that these have minor water damage (no, they were *not* dropped in a dam).

To request a copy please email kmcara@energylibrary.org.nz and provide your address for postage. RefENF01Natusch)

2. BE IN FOR THE DRAW TO RECEIVE A LARGE ENERGY CHOCOLATE BAR

All those who request an item from this update will have their name put into a draw to receive a large bar of energy chocolate.