### Major Projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Title</th>
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<tbody>
<tr>
<td>2008</td>
<td>Energy Information Handbook</td>
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<td>2008</td>
<td>An Analysis of the Effect of Renewable Energy Targets in the Electricity Sector on the New Zealand Gas Industry</td>
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<td>2008</td>
<td>New Zealand Distributed Generation Inventory for EnergyScape Project</td>
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<td>2008</td>
<td>Identifying the Linkages between Energy Policy and other ECAN Policy Portfolios</td>
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<tr>
<td>2008</td>
<td>A Study into the Cyclical Performance of the New Zealand Construction Industry</td>
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<tr>
<td>2007</td>
<td>Managing Landslip Risk</td>
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<td>2007</td>
<td>Canterbury Clay Bricks: The Feasibility and Economics of Installing a Wood Gasifier to Generate Producer Gas</td>
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<td>2007</td>
<td>Feasibility Study to Maximise the Benefits from Blue Mountain Lumber’s Combined Heat and Power Plant</td>
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<td>2007</td>
<td>Energy Efficiency in the Dairy Shed (completion of three year study)</td>
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<tr>
<td>2007</td>
<td>Understanding the Contribution of Direct Use of Gas to New Zealand’s Future Energy Efficiency Objectives</td>
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<tr>
<td>2006</td>
<td>Otago &amp; Canterbury Regional Energy System Studies</td>
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<td>2006</td>
<td>Renewable Energy Commercialisation Potential</td>
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<td>2006</td>
<td>Sustainable Development of NZ’s Oceans</td>
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<tr>
<td>2005</td>
<td>Key Performance Indicators in the Construction Sector (ongoing)</td>
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<td>2005</td>
<td>Southland Dairy Shed Energy Efficiency (ongoing)</td>
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<td>2005</td>
<td>Managing Flood Risk</td>
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<tr>
<td>2005</td>
<td>Application Guide for Diesel and Gas Engine Generation in NZ</td>
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<td>2005</td>
<td>Current Imperatives for Risk Management in NZ</td>
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<td>2004</td>
<td>Planning for Natural Hazards in the Built Environment</td>
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<td>2004</td>
<td>The Role of LNG in the NZ Thermal Fuels Market</td>
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<td>2004</td>
<td>Contribution of NZ Construction Sector to the Economy</td>
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<td>2004</td>
<td>Potential for Thermochemical Conversion of Southland Lignites</td>
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<tr>
<td>2004</td>
<td>Best Practice in Construction Procurement &amp; Delivery (ongoing)</td>
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<td>2004</td>
<td>Energy from Waste</td>
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<td>2003</td>
<td>Economic Opportunities in NZ’s Oceans</td>
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<tr>
<td>2003</td>
<td>Review of the Environmental Technology Sector Opportunities for Distributed Generation (ongoing)</td>
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<tr>
<td>2002</td>
<td>Risk Communication: Sharing the Future</td>
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<td>2001</td>
<td>Assessment of Environmental Effects Domestic Hot Water: Options &amp; Solutions</td>
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<tr>
<td>1998</td>
<td>The Edgecumbe Earthquake Risk Communication – Owning the Future</td>
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<tr>
<td>1997</td>
<td>Christchurch Lifelines – Risks &amp; Realities</td>
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<td>1996</td>
<td>New and Emerging Renewable Energy Opportunities</td>
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<tr>
<td>1994-2002</td>
<td>Electricity Supply &amp; Demand</td>
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<td>1993-1994</td>
<td>Reliability of Electricity Supply</td>
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<td>1992</td>
<td>Risk Assessment of industrial &amp; Natural Hazards</td>
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### Major International Conferences

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<tr>
<th>Year</th>
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<tr>
<td>2005</td>
<td>Resilient Infrastructure</td>
</tr>
<tr>
<td>2002</td>
<td>The Contract in Successful Project Management</td>
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<tr>
<td>1999</td>
<td>Our Oceans: The Next Great Economic Frontier</td>
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<tr>
<td>1997</td>
<td>Pacific Coasts &amp; Ports ’97 Integrated Risk Management</td>
</tr>
<tr>
<td>1995</td>
<td>Wellington After the ‘Quake</td>
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<tr>
<td>1994</td>
<td>The Environmentally Educated Engineer</td>
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</tbody>
</table>

### Workshops & Seminars

**Series**

- **2007-2008** Distinguished Fellows Forums
- **2002-2007** Distributed Generation
- **2004-2008** New Engineering Contract
- **2004-2006** Risk Communication
- **2005-2006** NZ Construction Industry Key Performance Indicators
- **2006-2008** Infrastructure Vulnerability to Natural Hazards Sustainable Development of Ocean Resources

**Individual**

- **2008** Hydrates Session, New Zealand Petroleum Conference Taking Stock of Hazards and Risks Cyclic Performance of the NZ Construction Industry Carbon Abatement Landuse of Landslip-prone Land
- **2005** Hot Market Procurement Driving Change, National Constructing Industry Conference Efficient Dairy Shed Project Workshop
- **2005** Biomass Gasification Critical Infrastructure Systems Southland Lignites: Opportunities & Challenges Oceans of Opportunity
- **2004** Best Practice in Construction Procurement & Delivery Partnering Masterclass
- **2003** Project Alliancing Planning for Natural Hazard Risk in the Built Environment Cleaner Production Integrating Risk Management Processes into Project Management
- **2002** Waste Minimisation: Sector Workshops
- **2001** Systems Engineering: Dealing with Complexity Natural Hazards Management Forum US/NZ Civil Infrastructure Systems Fire Engineering Design Resource Stewardship Distributed Generation Effective Risk Communication
- **2000** Innovative Manufacturing The Risk Communication Challenge
- **1999** Assessment of Environmental Effects Management of Hazardous Waste & Landfill Guidelines
- **1996** New & Emerging Renewable Energy Opportunities
- **1994** Energy Efficiency: Current & Emerging Technologies Lessons from the Northridge Earthquake

### Other Projects

- **1991 & 1999** Guidelines for the Use of Structural Precast Concrete in Buildings
- **1989-1991** Lifelines in Earthquakes
1992  Reliability of Electricity Supply
       Cleaner Production
       State-University-Industry Linkages
       Lifeline Services in Earthquakes
       Sustainable Management and the RMA
1991  Our Waste – Our Responsibility
1994  Environmental Engineering Education
       Christchurch Lifeline Vulnerabilities
1990  Lifelines in Earthquakes
       Waterborne Diseases in Water Supplies
       Opportunities for Energy Saving in Industry
       Advanced Process Control
       Fire Safety and Engineering
1989  Economic Conservation and Recycling of Structures
1988  Flexible Manufacturing Systems

Prestige Lectures
2008  Lessons Learnt from Disasters: Planning for Recovery
       Jim Schwab, American Planning Association
2007  Meeting the Challenge of Greenhouse Gas Abatement
       John Bosher, National Generators Forum (Australia)
       Modern Approaches to Infrastructure Resilience
       Prof. Tom O'Rourke, Cornell University
2006  Professional Performance, Innovation and Risk
       Peter North, Chairman, Warren Centre
2005  Better Managing Resource Conflicts
       Hon. Nick Smith, MP
2005  The History Of Reclamation And Use Of Marine-dredged Sand For Construction In Hong Kong
       Dr Richard Martin, Hong Kong Government
2003  Schools of Excellence
       Hon. Nick Smith, MP
2003  Natural Gas - How Methanex fits in
       Bruce Atiken, Methanex Corporation
2002  This Sustainable Development Thing – Does It Matter For Engineers?
       Lindsay Gow, Ministry for the Environment
2002  The Successful Integration of Research with Business Strategy
       Dr Chris Mallett, Fonterra
2001  Technologies for Sustainable Development
       Lex Holst, Shell Global Solutions
2000  Technology of the America's Cup
       Prof. Peter Jackson, University of Auckland
2000  The Architecture of Energy Systems
       Prof. David Sanborn Scott, University of Victoria, Canada
2000  Business Responses to the Challenge of Sustainability
       Dr Roland Williams, Chairman, Australian Magnesium Corporation

Newsletters
InfoDirect/CAE Information Bulletin – 1989 to date
ConstructingNZ 2006 to date

Visiting Fellows

Project Workshops/Conferences
Lifelines in Earthquakes (September 1990)
- Donald Ballantyne, Dames and Moore, Seattle, Washington, USA
- Professor Ian Buckle, State University of New York (Buffalo) and Deputy Director of the National Centre for Earthquake Engineering Research, USA
- Dr Dennis Ostrom, Southern California Edison Company (Los Angeles), USA

Our Waste: Our Responsibility (November 1991)
- Professor Donald Huisingh - Erasmus University, the Netherlands
- Kenneth Simpson - President and CEO of the Alberta Special Waste Management Corporation based in Edmonton, Canada
- David Campbell - Head of the Landfill Research and Management Section, Environmental Safety Centre, Harwell Laboratory, England
- Professor Dale Vanderholm - Associate Dean for Agricultural Research and Associate Director of the Nebraska Agricultural Experiment Station at the University of Nebraska-Lincoln, USA

Reliability of Electricity Supply (August 1992)
- Dr Roy Billinton, Associate Dean of Graduate Studies, College of Engineering, University of Saskatchewan, Canada
- Professor Ron Allan, Department of Electrical Engineering and Electronics, University of Manchester Institute of Science and Technology, England

Energy Efficiency: Our Future (February 1994)
- Dr Adam Brown, Renewable Energy Programme Co-ordinator, Energy Technology Support Unit at Harwell, England
- Professor Ian Fells, Professor of Energy Conversion at the University of Newcastle-upon-Tyne, England
- Stephen Selkowitz, Programme Leader, Building Technologies Department, Lawrence Berkeley Laboratory at the University of California
- Professor Daniel Sperling, Professor of Environmental Studies and Civil Engineering and Director of the Institute of Transportation Studies at the University of California, Davis
- Martin Thomas, Principal of Sinclair Knight Merz Pty Limited, Sydney, Australia

Risks & Realities (Christchurch Lifelines Group) (1997)
- Ron Eguchi, Vice President of EQE International

Integrated Risk Management (1997)
- Tony Taig, Business Development Director, AEA Technology, UK
- Brent Woodworth, IBM, USA
- Mark Tweeddale, HM Tweeddale Pty Ltd, Sydney
- Stephen Horn, President, EQE Engineering and Design Division, USA
- George Walker, Alexander Howden Reinsurance Brokers, Sydney
- Ray Armstrong, Marsh & McLennan, Sydney

Assessment of Environmental Effects (March 1999)
- Barry Sadler, Chief Executive of the United Kingdom Institute
of Environmental Assessment

*Ocean Opportunities: The Next Great Economic Frontier* (October 1999)
- Mahdi Hasan, Vice President, Shell International, New Orleans
- Ted Brockett, President, Sound Ocean Systems Inc., Seattle
- Alex Malahoff, Chair, Ocean Engineering Department, University of Hawaii
- David Vanderzwaag, Dalhousie University, Canada
- Bev Edwards, Chief Facilities Engineer, Vanco Energy, Houston
- Mike Chapman, President, MECCO Inc., Seattle

*The Contract in Successful Project Management* (February 2002)
- Dr Martin Barnes, Executive Director, Major Projects Association, UK
- Dr Nael G Bunni, Chartered Engineer, Past President Chartered Institute of Arbitrators, Ireland
- Frank McDonough, CEO McDonough Bolyard Peck, USA
- Tan Wee Teck, Director Asia Construct Publishers, Singapore
- Professor Lu Youjie, Tsinghua University, China
- Dr Armando Araujo, Director of Procurement, Operations Policy, the World Bank, USA
- Dr Patrick Tuohey, Director of Risk Management, Worley Ltd, Australia
- Tim Wood, Chief Engineer, Cornwall County Council, UK

*Distributed Generation Workshop* (June 2002)
- Dr Malcolm Kennedy, Chairman, PB Power Ltd, UK

*New Zealand Energy Conference* (November 2002)
- Dr Ken Dobinson, Project Director, Sustainable Transport/Sustainable Cities Project, Warren Centre, Sydney, Australia

*Seminars*

*Flexible Manufacturing Systems* (November 1988)
- Professor Gunnar Kullberg, University of Lund, Sweden
- Professor Gideon Gerhardsson, Swedish Employers Confederation, Stockholm, Sweden

*Economic Conservation and Recycling of Structures* (September 1989)
- Poul Beckmann, Arup Research and Development, London, England

*Fire Safety and Engineering* (April 1990)
- Dr Vaughan Beck, Victoria University of Technology, Melbourne, Australia
- Dr Caird Ramsay, Division of Building Construction and Technology, CSIRO, Melbourne, Australia
- Dr Ian Thomas, BHP Melbourne Research Laboratories, Melbourne, Australia

*Advanced Process Control: Opportunities and Benefits* (August 1990)
- Dr Mike Brisk, ICI Australia Engineering, Melbourne, Australia

*New Opportunities for Saving Energy in Industry* (October 1990)
- Dr Greg Ashton, Linnhoff March Limited, Manchester, England

*Identification & Treatment of Waterborne Diseases in Water Supplies* (Nov/Dec 1990)
- Professor John O’Connor, University of Missouri - Columbia, USA

*Lifeline Services in Earthquakes* (April 1992)
- Professor Tom O’Rourke, Cornell University, Ithaca, New York, USA

*State-University-Industry Linkages* (July 1992)
- Professor Gordon Wray FRS, Loughborough University of Technology, England

*Improving New Zealand’s Competitive Edge through Cleaner Production* (July 1992)
- Professor Donald Huisingh, Erasmus University, the Netherlands

*The Risk Communication Challenge* (November 2000)
- Dr Bernd Rohrmann, Melbourne University, Australia

*US/NZ Workshop on Civil Infrastructure Systems* (October 2001)
- Donald Ballantyne, EQE Inc, USA
- Professor Ian Buckle, University of Nevada, USA
- Dr Peter Chang, National Science Foundation, USA
- Professor Ross Corotis, University of Colorado, USA
- Professor Tony Dalrymple, University of Delaware, USA
- Professor Rachel Davidson, Cornell University, USA
- Professor Nicholas Jones, Johns Hopkins University, USA
- Professor Anne Kiremidjian, Stanford University, USA
- Dr Richard Little, National Academy of Sciences, USA
- Sarah Millsaps, Johns Hopkins University, USA
- Dr Randall Poston, WDP & Associates, USA
- Dr William Savage, Pacific Gas & Electric Company, San Francisco, USA
- Professor Nobuoto Nojima, Gifu University, Japan

*Systems Engineering* (October 2001)
- Ian Faulconbridge, Ball Services, Australia

*Risk Management* (October 2002 & 2005)
- Dr Caron Chess, Director, Centre for Environmental Communication, Rutgers University, USA

**CAENZ** is an independent think tank and research facilitator funded by grants and sponsorships. **CAENZ’s mission is to advance social progress and economic growth for New Zealand through broadening national understanding of emerging technologies and facilitating early adoption of advanced technology solutions.**

**How to Contact Us...**

**Mail:** CAENZ
University of Canterbury Campus
Private Bag 4800
Christchurch 8140, New Zealand

**Phone:** +64 3 364 2478
**Fax:** +64 3 364 2069
**e-mail:** info@caenz.com
**Web:** www.caenz.com