

# The Ecoefficiency Group Pty Ltd Capability Statement

#### Overview

The Ecoefficiency Group was established in February 2013 by former members of The Working Group for Cleaner Production (The University of Queensland). We specialise in environmental management and ecoefficiency services for industry.

Our aim is to help industry profit from better environmental management. We help businesses identify and implement environmentally sustainable practices both for individual production processes and across supply chains.

We are passionate about embedding sustainable practises within a business. We support industry in their use of environmental management tools (environmental auditing, cleaner production /eco-efficiency, life cycle assessment, public reports and sustainability assessment).

We support government agencies and industry associations in their promotion of environmental sustainability to industry, through the development of high quality information resources and self-assessment tools.

The Ecoefficiency Group understands that businesses are at varying stages of their sustainability journey. We also understand that to make lasting change, staff need to be engaged and encouraged to participate.

So, we make a point of tailoring services to suit business needs.

#### **Our Services**

#### **Resource Efficiency**

- Energy, water and waste audits and management plans
- Certified Measurement and Verification of energy and water Project
- Energy metering and control systems
- Carbon footprints and inventories
- Carbon neutral certification applications
- Project Management
- Evaluation of technologies

#### **Sustainability Strategies**

- Sustainability and Corporate Social Responsibility
- reporting
- Staff engagement programs
- Building Green Teams
- Social Responsibility Reconciliation Action Plans (RAPs)
- Business Backing Biodiversity (BBB)
- Community Projects
- Life Cycle Assessments
- Green Procurement

## **Training and Education**

- Online training modules
- Business coaching
- Face to face workshops
- Webinars
- Manuals and factsheets
- Case studies
- Videos and animations
- Sustainability tools





## Our Team

The Ecoefficiency Group team has combined experience of almost 40 years working with industry and government to manage and reduce impacts on the environment.



## Penny Prasad, Director

Penny is a Chemical Engineer (Hons) with over 23 years of experience working with manufacturing industries. In 2013, Penny was awarded a Glencore Xtrata Energy Leaders Scholarship and has completed a Master of Energy Studies with the International Energy Centre. She is also a Certified Measurement and Verification Professional through the Association of Energy Engineers and Efficiency Valuation Organization. She spent 9 years employed in food manufacturing with CSR Sugar Ltd and National Foods Ltd working in various operational roles including Quality Manager, Team Leader and Production Manager. She was a consultant/researcher with the Working Group for Cleaner Production (WGCP) for 12 years during which time she worked on eco-efficiency projects for various industries including metal fabrication, poultry growing, dairy processing and meat processing. She has experience in, water management plans, energy assessments, industry carbon footprint/inventories, life cycle assessment and public reporting. Penny spent four years as coordinator of the Dairy Manufacturers Sustainability Council on behalf of Dairy Innovation Australia Ltd and Dairy Australia.



## Jane Gaffel, Director

Jane is a Chartered Environmental Engineer with over 17 years of experience in the environmental industry in ecoefficiency assessments, energy auditing, water management plans, carbon footprints and public reporting. She is also a Certified Measurement and Verification Professional through the Association of Energy Engineers and Efficiency Valuation Organization. Jane's past roles include 5 years as consultant/ researcher with the WGCP working with sectors including food manufacturing, foundries and metal finishing. Previous to this she worked in consulting (stormwater management strategies and modelling; hydrology and hydraulics; remediation of contaminated land sites) and local government (environmental training and management of infrastructure placement including site assessment and approval applications).



## Nicole Price, Director

Nicole Price has a Bachelor of Education (Biology) and a Diploma in Applied Science (Wilderness Reserves and Wildlife) and 30 years' experience working in environmental management. For the last 16 years she has been working on a variety of industry eco-efficiency projects. Projects have including undertaking eco-efficiency assessment and benchmarking, developing engaging resource and training material including audio visuals, manuals, factsheets and case-studies, literature reviews and excel-based and on-line sustainability tools. Nicole has worked with sectors including food processing and retail, tourism, farmers, foundries and boat building. Her past experience includes working at the University of Queensland (in research assistant, academic and technical roles), for local government (Water Demand Management) and with State Government in Natural Resource Management roles.





## Dr Marguerite Renouf, Associate

Marguerite trained originally as an industrial chemist, and worked in industry for seven years. She subsequently pursued a career in industrial environmental management, in consulting and research roles. Her long-standing interest has been in eco-efficiency, and has worked with UQ's WGCP since its establishment in 1996, and was its director between 2009 and 2012. Marguerite currently pursues research activities in life cycle assessment (LCA) for evaluating the sustainability of production systems and informing practice change. Her most significant contribution has been the development of high-quality information resources and tools to support industry efforts in eco-efficiency, including manuals and customised LCA tools for industry.



## Robert Pagan, Associate

Bob Pagan has an undergraduate degree in Chemistry and a Master's Degree in Biotechnology. He worked for many years in the biotechnology industry before establishing the UNEP WGCP in 1995. Projects managed by Bob include: Ecoefficiency assessments for individual manufacturing companies; sector-wide Cleaner Production reviews for the food, meat, dairy, metal casting and metal finishing industries; feasibility assessments of 'cleaner technologies' and costbenefit analyses of waste management opportunities. Bob taught undergraduate and postgraduate courses at the University on cleaner production, sustainability and environmental impact assessment, and supervised student research projects. In 2007, Bob worked for the International Water Centre as Training and Education Manager responsible for developing an Integrated Water Management course. Bob continues to consult nationally and internationally in the field of Ecoefficiency and Sustainability.



#### Will Kershaw, Associate

Will is an Environmental Engineer with over eight years of experience in the environmental field, his career progressing through consulting, research, education and business management roles. Will worked with the WGCP from 2008-2010, undertaking technical project work covering sustainability reporting, carbon accounting (NGERs and IPCC), resource, energy and waste benchmarking; ecoefficiency assessments and lifecycle assessment (LCA). During this time, Will also undertook a business development role for UniQuest. Will is currently undertaking a contract position with EPA Victoria working on corporate strategy (sustainability) and reviewing clean technology funding applications for the Hazardous Waste Fund.



## Uncle Bill Buchanan, Associate

Uncle Bill Buchanan is an experienced Indigenous business facilitator, strategic policy advisor, program manager and cultural competence/cultural safety trainer. He has over 30years practical experience in these key roles and appreciates the complexities of working across government, community, industry and private sectors with respect to governance, productivity and corporate social responsibilities. Uncle Bill is an accredited complexity management practitioner with significant experience in developing and integrating Reconciliation Action Plans (RAPs) for Australian based organisations and companies. He is well versed in change management strategies to support RAPs including communication strategies, training, governance and policy frameworks.





# **Projects**

Our team has worked on the following projects, mostly during our previous incarnation with the Working Group for Cleaner Production:

ecoBiz coaching and associates (2014 - 2017) - members of The Ecoefficiency Group (Penny Prasad, Jane Gaffel and Nicole Price) are currently associates of the Chamber of Commerce and Industry Queensland and University of Southern Queensland ecoBiz program (www.cciqecobiz.com.au). We are involved with business coaching, webinars, workshops, and development of ecoBiz resource materials, including the industry excel based benchmark tool.

Management, containment and reuse options for water runoff in red meat processing facilities – AMPC (2016/17) - this project investigated current stormwater runoff management and reuse in red meat processing facilities in Australia. A review of 5 technologies were undertaken that were applicable to the industry and a framework for good practise and opportunities for stormwater management was produced.

Investigating water and wastewater reuse and recycling opportunities using the HACCP risk management framework - AMPC (2016/17) - this project included a survey and review of current status of water recycling and reuse in red meat processing. The risk-based Hazard Analysis Critical Control Point (HACCP) framework was used to develop a guideline and template for water recycling and reuse opportunities for the industry.

Wastewater Management and Biogas Manuals for the red meat processing industry, AMPC (2016/17) - updating of extension material on wastewater management and biogas for the red meat processing industry. This involves updating the manuals and providing an on-line training package which includes 8 x 10 minutes videos, factsheets, checklists and quizzes.

**Queensland Department of State Development (2017)** - literature review and 8 case studies on Sustainable Advanced Manufacturing. This work was part of the Queensland Government Advanced Manufacturing 10 yr Roadmap.

**Level 2 AS3598 Energy Audits (2017) -** level 2 energy audits were undertaken for a Cairns Community Housing Organisation and three Brisbane based community organisations.

**Energy Assessment for two schools – Enviro Projects - (2016) - e**nergy assessments of two school were undertaken investigating energy consumption patterns using ENOPTE AuziMax energy data and investigating and suggesting opportunities for energy reduction.

Cleantech case studies - Sunshine Coast Council (2016) — TEG produced 6 Cleantech case studies demonstrating the technical, environmental and cost benefits of installing Clean technologies in Sunshine Coast organisations. These included a local college, university, airport and several businesses.

**Building water auditing, The University of Queensland (2016)** –These water audits of buildings at The University of Queensland involved a thorough assessment of water use in the building and proposing and costing options to reduce water use and access alternative water sources.

Hazardous Air Pollutant Review of Priority Facilities (2014-2016) - TEG worked in partnership with air quality specialists Katestone to identify, evaluate and implement international best practice measures to reduce emissions of hazardous air pollutants from priority industrial facilities on behalf of New South Wales EPA. The project included an assessment of the relative risk to the environment posed by air pollutants and identify options for appropriate regulatory response.



**Energy transition strategy for Noosa Council (2015)** - a carbon footprint and strategy for switching to renewable energy for the Noosa Council. Completed as part of a Master of Energy Studies (Penny Prasad).

**Green Office, Green Lab and Environmental Responsibilities Training (2010 - ongoing)** - we are partnering with the University to deliver staff development training for Green Office, Green Lab and Environmental Responsibilities.

**Energy, water and waste efficiency for dairy processors (2015) -** developed and delivered workshop on energy, water and waste efficiency for NSW dairy processors on behalf of Dairy Innovation Australia Ltd.

**Environmental short-courses for red meat processing industry (2015)** - on behalf of the Australian Meat Processing Corporation. We have developed and presented environmental short-courses for abattoir staff on water efficiency, solid waste, biogas and CALs and wastewater efficiency.

Greening the food value chain – fruit and vegetable processing (2014) - commissioned by the United Nations Development Organisation (UNIDO), The Ecoefficiency Group prepared a research report that identifies best environmental practice in the manufacturing value chain of fruit and vegetable processing. The guide serves as a point of orientation for policy makers, investors and industry stakeholders in the food and beverages sectors and sub-sectors in the promotion of Green Industry policies and practices.

**Level 2 AS3598 Energy Assessments of five foundries (2013/14)** - level 2 AS3598 Energy Assessments were undertaken for 5 Queensland foundries as part of the Australian Foundry Industry, Energy Efficiency Information Grants program.

Water use and waste water treatment in red meat processing – a literature review (2013) commissioned by QMI Solutions for the Queensland Government, this project was a literature review of the latest research, technologies, report and resources on the topic of water conservation and wastewater treatment in red meat processing. The report is as a summary document and guide for meat processing operators to give an indication of the latest developments and where to look for more information.

Greening the food value chain – red meat processing (2013) - commissioned by the United National Development Organisation (UNIDO), The Ecoefficiency Group prepared a research report that showcases best environmental practice in the manufacturing value chain of red meat processing. The guide serves as a point of orientation for policy makers, investors and industry stakeholders in the food and beverages sectors and sub-sectors in the promotion of Green Industry policies and practices.

**Measurement of scope 3 emissions related to business travel (2013)** - the work included a gap analysis, data collection and analysis of accuracy of current Scope 3 carbon emissions for the University of Queensland.

The University of Queensland Green Labs Program (2011-2013) - development of a Green Labs program for The University of Queensland. This program will assist university laboratories to become more environmentally aware by providing guidelines developed to reduce energy and water use and waste generation and improve purchasing choices.

**Streamlined LCA web tool for sugarcane (2011-2012)** - assisted in the development of a CaneLCA Ecoefficiency Calculator to compare progressive practices against conventional practices for Wet Tropics, Central and Southern regions, using published descriptions of practice change. The results show that many progressive practices, such as those currently described by the ABCD framework, can lead to improved environmental efficiency across all impact categories. However, others may come with some environmental trade-offs.

Carbon Footprint and Level 2 AS3598 Energy Assessment (2012) – undertaken for the Patrick Port facility, Brisbane.



**Carbon Neutral Certification application (2012)** - a life cycle assessment (greenhouse emissions) was undertaken for the product, EasyOven, to be included in an application to Low Carbon Australia for gaining carbon neutral certification.

Validation and Update of the EarthCheck Carbon Calculator Benchmarking software (2008, 2010, 2012) - this work was undertaken on behalf of EC3 Global. It involved the initial collation and then subsequent review of fuel energy content and greenhouse gas emission factors for Scope 1, 2 and 3 emission for activities occurring typically in the tourism industry. Both national and international emission factors were obtained for entry into the EarthCheck Carbon Calculator. Compilation of a series of fact sheets on voluntary carbon offsetting for the Australian tourism industry.

**Eco-efficiency Workshops (2010)** - involved the development and presentation of eco-efficiency workshops to the food industry within the Brisbane City Council Region in line with BCCs Zero Waste Policy. The workshops were held in conjunction with Brisbane City Council and the Queensland Department of Employment, Economic Development and Innovation.

EarthCheck Case studies and fact sheets (2009-2010) - involved the development of case studies of Earthcheck-accredited tourism operators that have undertaken environmental initiatives. Ten case studies were developed. The case studies show how the operators have achieved their current level of environmental and social performance, and where possible include the financial payback periods and environmental benefits derived from their efforts. Useful information gleaned from the development of the case studies was also documented into 12 facts sheets for use by other operators to assist them implement similar improvements in their businesses.

**Sustainable Regions (2009)** - A pilot project undertaken in conjunction with EC3 Global to assist tourism operators in four regions around Queensland develop sustainable practices to support the promotion of Queensland as a sustainable destination. Tools were developed to assist individual tourism operators to examine energy, water and resource use, and waste and carbon emissions, and develop strategies to reduce their environmental footprint. The tools included a guide to assist companies undertake site audits, extensive lists of potential eco-efficiency opportunities, and guidance for undertaking a cost/benefit analysis of identified opportunities.

**Eco-efficiency in food processing and foundry industry project (2008-2010)** - involved updating previously-developed eco-efficiency resources for food processing, foundry industries and general manufacturing. A self-assessment checklist of eco-efficiency opportunities, aligned to the ecoBiz program, was also developed. To promote implementation, industry workshops were held, and a website set up as an eco-efficiency information portal for Queensland manufacturers <a href="https://www.ecoefficiency.com.au">www.ecoefficiency.com.au</a>

**Dairy Manufacturers Sustainability Council Co-ordination (DMSC) (2006-2010)** - co-ordination of the Australian DMSC. This involved organising twice yearly forums on emerging environmental topics of interest to the industry. The DMSC brings members together allowing them to workshop solutions to problems facing manufacturers.

**Dairy Manufacturers Water Recycling Guidelines (2009)** - co-authored the Australian Dairy Manufacturers Water Recycling Guidelines in partnership with Dairy Innovation Australia. The guidelines outline a risk management framework (HACCP) and provide technical guidance to encourage the use of recycled water that is "fit for purpose".

**Dairy Australia Greenhouse Gas Inventory (2008)** - a greenhouse gas inventory of the Australian Dairy Industry was compiled to assist Dairy Australia in their discussions with the government during the development stages of the Carbon Pollution Reduction Scheme.

Dairy Australia 2004/2005 State of the Environment and 2007/08 Sustainability Report (2005 & 2008) - these projects were undertaken for Dairy Australia to benchmark the Australian Dairy industry



performance and develop a public report to showcase sustainability initiatives. The project involved gathering resource consumption and waste production data from Australian dairy manufacturers and assessing the performance of the industry in relation to specific key performance indicators.

Small business eco-efficiency resources – shops, café and office (2007) - development of fact sheets for the shops, cafés and offices on water, energy and waste reduction for the Queensland government. These resources form part of the small business edition of the Queensland government's ecoBiz tool.

**Development of checklists and review of Water Efficiency Management Plans (WEMPS) (2007)** - the project involved partnering with Brisbane Water to develop checklists used for the review of WEMPs and reviewed submissions of approximately 40 Category 4 users (>10ML/yr). WEMPS were also developed for a number of large manufacturing companies including Norco, Coca Cola and Australian Food Corporation.

Water efficiency industry guidelines for Queensland Water Commission (2005-2006) - documentation describing water efficiency case studies and eco-efficiency opportunities for laundries, food processing, food service and metal finishing for posting on QWC website. Development of template Water Efficiency Management Plans for the same industries.

Development of an environmental risk assessment and EMS for Tyco Water (Carole Park) (2005) - Development and implementation of an ISO 14001 accredited environmental management system at Tyco Water. This project included a gap analysis, the development of an action plan and the development and implementation of policies and procedures to enable Tyco Water Wacol to become an ISO 14001 accredited organisation by March 2006. Site-wide environmental training was also undertaken together with the development of an environmental induction video.

**Ecoefficiency for the Queensland Marine Industry (2004-2006)** - This project was undertaken for QLD Department of State Development, Trade and Innovation and the QLD Environmental Protection Agency. The project involved visiting 30 individual companies and compiling technical information on CP opportunities for boats builders and marinas in the form of 21 fact sheets which were distributed through the Qld Boat Industry Association.

**Ecoefficiency for the Australian Dairy Industry (2003-2004)** - This project was undertaken on behalf of Dairy Australia. It involved the production of an Ecoefficiency manual specific to Australian dairy processors. The project also included eco-efficiency assessments for individual processors, water audits and benchmarking studies.

**Ecoefficiency for the Queensland Food Industry (2003-2004)** - This project was undertaken for the Australian Industry Group, QLD Department of State Development, Trade and Innovation, QLD Environmental Protection Agency, Agriculture, Fisheries Forestry — Australia (AFFA), Australian Water Association (AWA) and Brisbane Water to promote EcoEfficiency to Queensland's food processing industry. The project involved assessments of individual companies, including evaluation of opportunities and production of an Ecoefficiency Toolkit including a reference manual, self-assessment guide and calculators.

**Evaluation of Water Management Plans for Brisbane Water Users (2002-2003)** - Water Management Plans were evaluated and reviewed for the largest users of water in Brisbane on behalf of Brisbane Water.

**Ecoefficiency Manual for the Queensland Meat Industry** (2001–2002) - The QLD Department of State Development, the EPA and Meat and Livestock Australia (MLA) funded this project to promote Ecoefficiency to Queensland's meat processing industry. The project involved the compilation of technical information on CP opportunities and the consolidation of this information into a reference manual and self-assessment tools.





## **Our Publications**

Penny Prasad, Dr Mike Johns, Louis Fredheim, Nicole Price, Jane Gaffel, 2017, <u>Guideline for Water Recycling and Reuse in Red Meat Processing</u>, Australian Meat Processor Corporation.

Nicole Price, Jane Gaffel and Penny Prasad, 2017, <u>Stormwater Management Framework and Good Practice Guidelines for Meat Processing Plants</u>, Australian Meat Processor Corporation.

Marguerite Renouf, Bernard Schroeder, Nicole Price and Peter Allsopp, (2014) <u>Assessing the environmental benefits of practice change using the CaneLCA eco-efficiency calculator</u>. International Sugar Journal, 116 1390: 754-765

Penny Prasad, Nicole Price, Jane Gaffel, and Bob Pagan, 2013. <u>Greening Food and Beverage Value Chains: the Case of the Fruit and Vegetable Industry.</u> A report for the UNIDO Green Industry Initiative http://www.greenindustryplatform.org/wp-content/uploads/2014/09/Greening-Value-Chains\_Asian-Fruit-and-Veg\_2014.pdf

Penny Prasad, Nicole Price, Jane Gaffel, and Bob Pagan, 2013. <u>Greening Food and Beverage Value Chains: the Case of the Meat Processing Industry.</u> A report for the UNIDO Green Industry Initiative www.unido.org/fileadmin/user\_media\_upgrade/Media\_center/2013/News/Green\_Industry\_Conference/Meat Processing Report.pdf

Penny Prasad, David Pullar, Steven Pratt, 2014. <u>Facilitating access to the algal economy – mapping waste resources to identify suitable locations for algal farms in Queensland.</u> Journal of Resources, Conservation and Recycling. 86 (2014) 47–52

Penny Prasad, Nicole Price, Marguerite Renouf, Jane Gaffel & Will Kershaw, 2010. <u>Eco-efficiency in Australian food processing – an update on implementation, drivers and barriers.</u> 9<sup>th</sup> Asia Pacific Roundtable for Sustainable Production and Consumption. Colombo, Sri Lanka June 2010.

Nicole Price and Marguerite Renouf, <u>Outcomes of mandatory water efficiency in businesses – a case study from South East Queensland</u>, <u>Australia</u>. 9<sup>th</sup> Asia Pacific Roundtable for Sustainable Production and Consumption. Colombo, Sri Lanka June 2010.

Noheme Quispe-Chávez, Penny Prasad, John Coventry, 2009. <u>Guidelines for Water Recycling in Australian</u> <u>Dairy Manufacturing Plants</u> Dairy Innovation Australia Ltd Project Number: 07226P

Will Kershaw, Jane Gaffel, Penny Prasad and Robert Pagan, 2009, <u>Australian Dairy Manufacturing Industry Sustainability Report -</u> 2007-08, Dairy Australia

Robert Pagan, Nicole Price and Penny Prasad, 2009, <u>Environmental Impacts of the Dairy Industry in Improving the Safety and Quality of Milk</u>, Woodhead Publishing Limited, Cambridge, England

Robert Pagan, Jane Gaffel and Nicole Price, 2008, <u>Eco-efficiency resources for the Queensland Food Processing Industry</u>, The Queensland Department of Tourism, Regional Development and Industry and the Queensland Environmental Protection Agency.

Robert Pagan and Nicole Price, 2008, Good Housekeeping Procedures to Improve the Efficiency of Water Use in Food Processing Plants in the Handbook of Water and Energy Management in Food Processing, Chapter 11, 335 – 366 Woodhead Publishing Limited, Cambridge, England



Robert Pagan, Nicole Price and Jane Gaffel, 2008, Housekeeping Measures to Reduce Energy Consumption in Food Processing Plants in the Handbook of Water and Energy Management in Food Processing, Chapter 12, 368 -386 Woodhead Publishing Limited, Cambridge, England

Penny Prasad and Robert Pagan, 2007, <u>Eco-efficiency in the Australian Dairy Manufacturing Industry</u>, Asia Pacific Roundtable for Sustainable Production and Consumption, Hanoi, Vietnam, 25-27 April

Bob Pagan and Penny Prasad, 2007, The Queensland food eco-efficiency project: reducing risk and improving competitiveness, Journal of Cleaner Production, Vol 15, 764-771

Penny Prasad, 2006, Australian Dairy Manufacturing Industry State of the Environment Report 2005, Dairy Australia ISBN: 0958181462

Chaim Kolominskas, Nicole Price and Robert Pagan, 2006, Water Efficiency Guidelines for Food Processors, Metal Finishers, Food Services and Laundries, Queensland Water Commission

Robert Pagan, Chaim Kolominskas, Nicole Price and Penny Prasad, 2006, <u>Eco-efficiency Toolkit for the Marine Industry</u>, The Queensland Department of State Development and The Queensland Environmental Protection Agency

Chaim Kolominskas, Nicole Price, Penny Prasad and Robert Pagan, 2005, <u>Template Water Efficiency</u> Management Plans, SEQ Water

Bob Pagan, Penny Prasad and Nicole Price, 2005, <u>Innovations in Australian Food Processing – an ecoefficiency perspective</u>, 6<sup>th</sup> Asia Pacific Roundtable for Sustainable Consumption and Production, Melbourne, 10-12 October

Penny Prasad, Robert Pagan and Tonia Giobbi, 2005 <u>The Effectiveness of the Brisbane City Council Incentive Scheme for High-End Industrial Water Users</u> AWA Ozwater watershed Conference, Townsville/Brisbane 8-12th May

Bob Pagan and Penny Prasad, 2005 <u>Eco-efficiency, Water Conservation and Food Processing in Australia</u>, AWA Ozwater Watershed Conference, Townsville/Brisbane 8-12th May

Penny Prasad, Robert Pagan, Marguerite Renouf, 2004 <u>A critical analysis of Cleaner Production in Queensland's Food Industry– past efforts and future opportunities</u> - Asia Pacific Roundtable for Cleaner Production Conference Proceedings, Kuala Lumpur, Malaysia, 15th - 18th March

Penny Prasad and Robert Pagan, 2004 <u>Cleaner Production in the Queensland Food Processing Sector</u> - Asia Pacific Roundtable for Cleaner Production, Kuala Lumpur, Malaysia, 15th - 18th March

Penny Prasad, Robert Pagan, Michael Kauter and Nicole Price, 2004 <u>Eco-efficiency for the Dairy processing Industry</u>, Dairy Australia ISBN: 0958181464 (manual) and 0958181454 (factsheets)

Robert Pagan, Penny Prasad and Nicole Price, 2004 <u>Eco-efficiency for the Queensland Food Processing</u> Industry, Australian Industry Group ISBN: 0975210009

Robert Pagan, Marguerite Renouf and Penny Prasad, 2002 <u>Eco-efficiency for Meat Processing</u>, Meat and Livestock Australia ISBN: 174036631X

Penny Prasad, 2002 <u>An Analysis of Cleaner Production in the Food Industry,</u> AWA Trade Waste Workshop, Hervey Bay, 18<sup>th</sup> September

Penny Prasad, 2002 <u>Eco-efficiency for Queensland Chicken Growers.</u> 12<sup>th</sup> Australian Poultry and Feed Convention, Gold Coast, 9th October

Robert Pagan, Penny Prasad and Nicole Price, 2001 <u>Eco-efficient Food</u>, Restaurant and Catering Queensland and Queensland Hotels Association

