

Energy Management Services



Enabling businesses to Understand, Comply, Implement and Lead in energy management

Australian businesses are faced with an array of energy management challenges.

Executives must navigate complex regulatory requirements, increasing energy costs, shareholder and community expectations and the potential implications from global carbon pricing policies.

Perenia is an energy services specialist that provides insight and expertise to help businesses understand, comply, implement and lead in energy management.



Perenia is a Joint Venture between
Snowy Mountains Engineering Corporation (SMEC Holdings Ltd.),
Pacific Hydro Pty Ltd. and Mitsui & Co., Ltd.



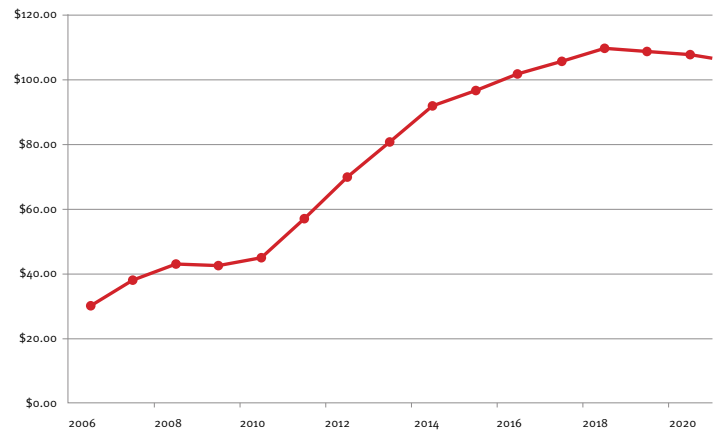
Perenia provides complete carbon solutions. We partner with leading Australian businesses looking to proactively respond to the opportunities and challenges associated with the impact of climate change.

Energy prices are predicted to rise dramatically under the influence of a number of factors including proposed pricing on carbon, the maintenance and modernisation of networks and an accommodation for increasing percentages of renewable energy.

The chart below shows that some prices are predicted to at least double in the next twenty years (based on EIA modelling 2008).

Businesses that take action to improve energy consumption efficiency can realise cost-savings now and into the longer term and improve their own operations and competitiveness.

Predicted Trend in Electricity Price \$/MWh



Our Approach

Perenia has developed a targeted process for assessing and improving energy efficiency that can be used as a business improvement initiative whilst also meeting current legislative requirements:

We help our clients to **understand** their energy requirements and any challenges or opportunities that may exist. We facilitate **compliance** to national and other requirements. Based on analysis, we can assist clients to **implement** efficient energy management solutions and identify new opportunities to **lead** the client through a continually changing environment.

Understand

Comply

Implement

Lead

- Perenia will assume the role of facilitator to lead an ‘Energy Management Team’ that supports site management and nominated energy representatives;
- As the facilitator, Perenia can provide training and leadership in services supporting future project and reporting requirements;
- Perenia uses purpose designed diagnostic and brainstorming sessions to highlight project opportunities and provides spreadsheet tools, calculators and project sheets;
- Perenia is happy to develop and transfer this shared intellectual property so that clients can use these tools in-house.

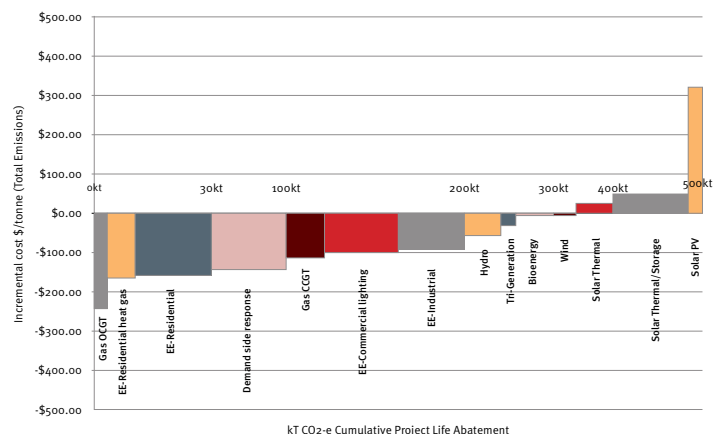
Understand

Cost savings, optimal internal rates of return on energy investments and more efficient energy use can be achieved when the interaction between the qualitative and quantitative aspects of energy management within the organisation are understood.

Perenia’s analytical tools include economic cost-benefit analysis, marginal abatement cost curves and technical and financial risk assessment, applicable to most project decision processes.

Comprehensive cost-benefit analysis produces marginal abatement cost curves to highlight carbon reductions at variable costs. Project technical and financial risk analysis produces risk rankings in relation to project returns.

Carbon abatement cost curves identify areas for efficiency gains



KT CO2-e Cumulative Project Life Abatement

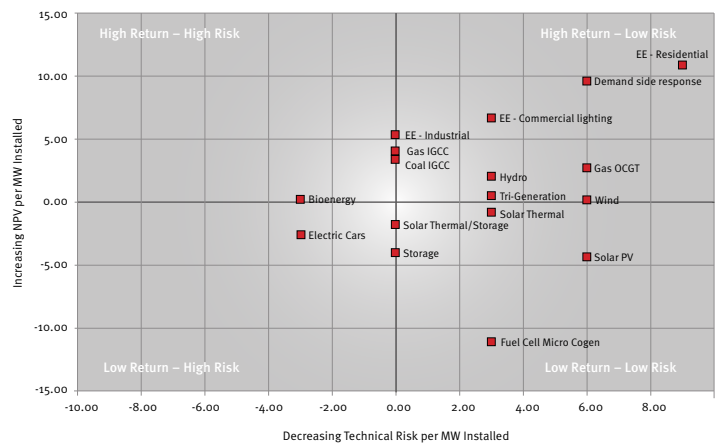
Comply

The Energy Efficiency Opportunities (EEO) Act 2006 affects about 250 of Australia’s largest energy users. The EEO Act sets out requirements for large energy users to perform a 5 yearly business assessment cycle focusing on six key elements of Energy Management. Perenia works in partnership with large energy users to meet these compliance requirements.

Perenia’s approach to energy management also ensures integration with compliance requirements under the National Greenhouse and Energy Reporting System (NGERS). NGERS applies initially to large energy users but progressively captures smaller energy users and producers in subsequent years.

By 2010/11 companies exceeding 50,000 tCO₂e or 200 TJ of energy produced or consumed must report and individual facilities can also trigger the reporting threshold if they produce 25,000 tCO₂e or produces or consume over 100 TJ of energy.

Technical and Financial Risk Matrix



Implement

Perenia offers expertise and experience in helping businesses to implement successful responses to the opportunities and challenges of energy management.

Our strength arises from our in-depth of knowledge in all aspects of project implementation.

We recognise and integrate with the strengths and experiences of our joint venture partners and shareholders in project feasibility and design, assessment of technology, reviewing finance options, sourcing equipment, project managing and operating energy and emission reduction projects.

Lead

Anticipating the future impacts of energy pricing, international and domestic action towards climate change and new technologies will position businesses to respond to these opportunities and challenges.

Perenia works with thought leaders to develop proactive and contingent strategies to place your organisation in the best possible place for the future.



Case Study

Perenia enjoys a long-term relationship with PMP Limited, Australasia’s leading integrated provider of consumer insight and printed communications solutions.

Perenia assisted PMP to understand the greenhouse gas (GHG) emissions profile of its print sites across Australia and New Zealand and provided purpose built calculators for this purpose.

More recently Perenia has undertaken a detailed energy and greenhouse gas emission analysis at PMP’s Salisbury, SA site to establish the greenhouse gas emissions intensity of alternate production streams: cold set printing and digital printing. This will allow PMP to provide product level greenhouse gas emission intensity data to customers. The detailed analysis included providing an energy review of consumption activities at the site, based on a level 2 Energy Audit.

The energy review highlighted eighteen potential energy saving opportunities from existing and new ideas. A detailed investigation and evaluation process was then undertaken for each opportunity to determine its suitability and feasibility based on energy savings, greenhouse gas emissions, cost savings, capital costs, and payback.



Perenia Energy Management Services

Our team consists of Australia's most highly experienced energy efficiency professionals who are focused on quality of work in execution, time performance and technical rigour. Our energy management services include:

- Process review and energy auditing;
- Identification, assessment, design and implementation of conservation measures;
- Monitoring and targeting systems;
- Tariff assessment and demand management;
- Energy systems modelling, such as site energy-mass balance models;
- Facilitation of energy management workshops;
- Development and integration of energy management into existing management systems;
- EEO and NGRS assessments together with other state based schemes;
- Assistance with funding applications; and
- Preparation for energy performance contracting.

Support & Incentives for Organisations

Perenia works with organisations to assist them access relevant funding opportunities. A selection of programs below demonstrates where Perenia can assist:

Australian Government:

- \$2.75 billion Climate Change Action Fund (CCAF);
- Solar Flagships program;

State Government:

- Energy Saving Scheme (ESS) Certificates (NSW);
- Sustainability Advantage Audit Funding (NSW); Victorian Energy Efficiency Target (VEET);
- Sustainable Energy Development Office (SEDO) Grants Program (WA);
- \$10M LEED funding (WA);
- QSEIF Sustainable research funding (QLD).

Legislation and funding for projects is in a constant state of change. Please contact Perenia for an update of what is currently available for your business.

Other services in our portfolio include: • Carbon Management Solutions; • CDM and JI registration and optimisation; • Transaction services for tradable carbon units; and • Project development and delivery.

Our People

Perenia's energy management services are provided by a specialist team from offices across Australia and supported by the Carbon Management Solutions team and Head Office in Sydney.

The team is led by Gordon Skerry, Practice Manager – Sustainable Energy Solutions. Gordon has hands-on experience in manufacturing, process and extractive industries, coupled with twenty years of Australian and International consulting experience. He has assisted major clients to develop effective management programs for energy efficiency, greenhouse gas abatement and compliance with mandatory reporting programs. He also has detailed managerial and technical exposure to mining, industrial processing, manufacturing and commercial environments with demonstrated ability to highlight viable cost saving projects and emission reductions through the application of innovative technical solutions.

For four years from 2005 Gordon was employed by Rio Tinto where he was instrumental in the establishment of the Excellence in Energy Management Program (EEM) which was applied at more than 35 sites worldwide (Minerals, Diamonds, Coal, Uranium, Copper, Aluminium and Iron Ore). **Contact: Gordon.skerry@pereniacarbon.com**

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**To find out more about Perenia visit
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