



## *Haden proudly support The Warren Centre's research into sustainable building solutions*

### **The Warren Centre for Advanced Engineering**

The Warren Centre for Advanced Engineering is an independent, industry-linked institute committed to fostering excellence and innovation in advanced engineering throughout Australia.

It is a self funding, not-for-profit body operating within the Faculty of Engineering at The University of Sydney, controlled by representatives from industry.

#### ***The Centre's Objectives***

The Centre helps to create wealth in the nation by:

- stimulating the application and further development of new engineering technology
- encouraging the integration of innovation and engineering technology into the development of Australia's public policy and wealth creation
- providing independent comment and advice to government and industry on these and related issues.

Since opening in 1983, the centre has gained wide recognition for its unique approach and its achievements in diverse fields of engineering, technology and industry development.





Haden are Gold Sponsors of The Warren Centre's Low Energy High Rise Project.

### **The Project aims to remove the barriers to:**

- Making high rise office buildings more energy efficient;
- Using proven energy saving technologies and techniques more widely;
- Extracting value by reducing greenhouse gas emissions from office buildings;



Scarborough House, Woden ACT  
Upgraded for energy performance in 2005.  
Image courtesy Indigenous Business Australia

*The LEHR Project will make a real difference to the rate at which energy efficiency initiatives are implemented in existing high rise office buildings.*

### **We will improve energy and greenhouse**

- The objective is reduced energy consumption and greenhouse gas emissions.
- This could create annual economic benefits of over \$100 million and increase building valuations.

### **By aligning owners and tenants interests**

- The technology exists but the stakeholders' business imperatives inhibit implementation.
- Engage the stakeholders to overcome barriers to implementation thus accessing the full value of energy savings.

### **Bringing benefit to the whole community**

- Lower energy consumption achieved economically;
- Lower greenhouse gas emissions;
- Cleaner, greener environment

### **More business and lower peak demand**

- New large scale, low risk investment opportunities
- Business growth in modern energy efficient systems, products and services;
- Reduced peak demand and deferral of capital expenditure to meet peak loads.

### **Building valuations up and tenant costs down**

- Contributing to environmental sustainability objectives;
- Lower energy costs;
- Potentially higher productivity from a better work environment;
- Prestige associated with leading edge premises.

### **What will the LEHR Project deliver?**

An evidenced base suite of initiatives developed by industry to overcome the barriers to significantly improved energy efficiency performance in existing office buildings.

### **Who is involved?**

An up-to-date record of Sponsors and the Steering Committee can be found at: [www.warren.usyd.edu.au/projects.htm](http://www.warren.usyd.edu.au/projects.htm)

### **What is our approach?**

The Warren Centre uses project teams comprising volunteers drawn from the industry stakeholder groups and sponsor organisations to transform markets.

### **What has the LEHR Project delivered so far?**

The LEHR Project has:

- Completed a comprehensive Literature Review identifying many benefits of energy efficiency, e.g. every \$1 invested in energy efficiency increases asset value by \$2-\$3 and attributed the impediments to energy efficiency in existing office buildings to the market structure of the sector; market failures and organisational barriers.
- Established the LEHR Supply and Demand Working Groups, which have agreed on a wide range of barriers to the upgrade of existing buildings.
- Developed a comprehensive national survey to understand current energy performance as well as practices and attitudes to energy efficiency among building owners, managers and tenants.
- Implemented the survey in over 170 office buildings Australia wide including buildings located in all states and territories that are owned by Government as well as large and small portfolio owners and involving responses from a building manager, asset manager, portfolio manager and tenant in the buildings.

### **What is the LEHR Project currently doing?**

The LEHR project is currently:

- Conducting a multi factor analysis of the large volume of information from the survey.
- Developing a number of scenarios that reflect industry experience.
- Establishing teams that will use the evidence from the survey and work through the scenarios to develop the suite of initiatives.

### **What will the LEHR Project do in the future?**

The LEHR will:

- Release the Research Report on the survey findings.
- Take the evidence from the research to inform the development of the suite of initiatives to overcome the barriers and impediments to energy efficiency upgrades in existing office buildings.
- Apply the tools in the suite of initiatives to case study buildings.

**For more information contact:** Mr Robert Mitchell, Chief Operating Officer  
The Warren Centre for Advanced Engineering, Engineering Link Building J13, Sydney University NSW 2006  
P: +61 2 9351 3752 F: +61 2 9351 2012 | [warrenc@eng.usyd.edu.au](mailto:warrenc@eng.usyd.edu.au) | [www.warren.usyd.edu.au](http://www.warren.usyd.edu.au)

**1300 4 HADEN**  
[www.haden.com.au](http://www.haden.com.au)



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