

Renewable Energy and Environmentally Sustainable Design Case Studies

Box Hill TAFE – UPS, GIPV and Wind

Site:

Box Hill, Melbourne, Victoria

Dates:

- System Design: November 2009
- System Installation: July 2010
- System Commissioned: July 2010

Client:

Box Hill TAFE

Project Goals:

Design, supply and install of a grid-connected power system – PV and wind – complete with a battery storage system for uninterrupted power supply (UPS). The installation was designed to demonstrate a variety of technologies to TAFE college students.

[GIPV = Grid Interactive Photovoltaics]

[UPS = Uninterrupted Power Supply]

[LCD = Liquid Crystal Display]

Project Features:

- PV panels installed both flat-on-roof and on frames.
- Inter-connected wind generator.
- UPS to demonstrate battery storage and grid connection.
- Dedicated, ventilated, battery room.
- Data from SP-Pro inverter integrated with the Building Energy Management System.
- LCD Display in the public reception area.
- No metal to metal contact for increased life expectancy and corrosion avoidance.
- Premium quality German, Australian and American components selected.
- System size: 5.25kWp

Award Winning Project;

This project won the 2011 Clean Energy Council award for *Best Design and Installation of an Uninterrupted Power Supply System less than 10kWp*

Project Team:

- Irwin Consulting
- Duncan Macgregor, System Design and Lead Installer, Going Solar
- Jo Bradley, Project Manager, Going Solar
- Glenn Robertson, Electrical Contractor

Further Information:

- duncan@goingsolar.com.au
- www.goingsolar.com.au
- (03) 9348 1000



PV Panels & Wind Generator



PV Panels on Roof



Framing Support Rails



Dedicated Battery Room and Control Equipment

Renewable Energy and Environmentally Sustainable Design Case Studies



**Batteries in leak-proof containers
in ventilated room**



**Battery Room, Control Panel,
Safety Signage and Equipment**



Detail of Safety Signage