

REDLAND ECOBIZ PILOT ACHIEVEMENTS

THE GOOD GUYS

ecoBiz Goals:

- Environmentally pro-active and to establish real cost savings that are sustainable in the areas of energy, waste and water.

ecoBiz Achievements:

Energy

- Implemented environmental awareness for both customers and staff;
- Implement a program to provide information to customers about energy efficiency of appliances sold in store and to run an in store energy efficiency education program.

Waste

- Quantified waste streams;
- Introduced paper recycling - 90% office waste now recycled;
- Introduced co-mingled recycling – approximately 95% recyclable items now recycled;
- New carry bags will be EPI degradable;
- Old catalogues given to the Pet Store for pet bedding;
- New computer upgrade gives staff option not to reprint docket;
- Introduced recycling of printer and toner cartridges with Planet Ark.

Education

- Training staff (to increase customer awareness) on advantages of energy and water efficient products and range of products;
- Developing a program to:
 - Raise profile of energy efficient appliances in specially marked area of store;
 - Provide customers with an informed choice and value for money;
 - Make brochures available on energy/water efficient appliances;
 - Create a buyers guide to saving energy and water and what to look for annum).

DARWALLA MILLING

ecoBiz Goals:

- Waste to energy;
- Farm forestry;
- Electricity/gas/water efficiency.

ecoBiz Achievements:

Energy: (many projects yet to be completed for cost/benefit analysis)

- Upgraded sheds (lights, walls, fans, heaters, cooling system and all electrics) – cost per shed \$100,000;
- Installed Programmable Logic Controls (PLC) on electric heater machines;
- Upgraded air compressor lines in mill and in hatchery;
- Reduced compressed air leaks in Hatchery and Mill – cost \$5,000;
- Replaced 30kW mixer motor with new 50kW AC HEM with VSD;
- Replaced twin motors on press (One motor replaced) and augurs.

Water:

- Monitoring quantity of town water used for washdown in hatchery;
- Managing combined waste washwater from mill and stormwater flows.

Waste:

- Construction of biomass plant is awaiting planning permission by Redland Shire Council and the Queensland EPA for conversion of poultry waste into electricity - Initial estimates are (Note: completion of this action is subject to development approval):
 - Cost to build biomass plant - \$10,000,000;
 - Energy generated – 40,000MW p.a.;

Savings of \$4,800,000 p.a. if this energy was purchased from the grid.

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REDLANDS NURSERY

ecoBiz Goals:

- Finalise our current waste minimisation trial and quantify the financial, environmental and OH&S benefits of the new system;
- Identify better utilisation of electricity;
- Critically look at all of our waste streams to identify other uses for the waste, or processes which may reduce or eliminate waste.

ecoBiz Achievements:

Energy

- Behavioural change – ensure all appliances turned off at end of day;
- Power-save installed on equipment (computers, photocopiers);
- Upgraded slasher for broad acre mowing - output increased to maximum of 9,000 m² of mown paddock per hour;
- Implemented the pump upgrades:
 - Orchard Rd site (4 kw Dam Water harvesting pump replaced with 2 kw Lowara pump)
 - Cost savings: \$864p.a., Energy savings: 9,600kWh p.a.
 - German Church Rd site (Removed 4kw treated water transfer pump, installed pipe linkage and siphon)
 - Cost savings: \$576p.a., Energy savings: 4,800kWh p.a.
 - German Church Rd site (Fertigation system)
 - Cost savings: \$432p.a., Energy savings: 4,800kWh p.a.

Water

- Utilising recycled water in the German Church Road toilet.

Waste

- Reviewed frequency of pick up and bin level of the industrial bins on both properties. Pickup frequency changed and with estimated cost savings of \$2,500.00 per annum;
- Introduced and trialled Chep FB2 collapsible bins to replace non-recyclable waxed trays used for transporting plants to customers. Results have shown the following:
 - Over 3 months, 635 waxed trays (1m3 or 195kg) saved from landfill;
 - Potential cost benefit per bin: 6 trays per bin: \$6.90 per bin;
 - Potential freight cost saving: 30% (shipping cubically as opposed to shipping at a per unit rate).

SIRROMET WINES

ecoBiz Goals:

- Achieve resource and cost savings through increased efficiency;
- Achieve better productivity, improved staff morale i.e. better practices, time management and holistic application;
- Secure market advantage through ecoBiz promotions i.e. eco-tours, quality venues.

ecoBiz Achievements:

Energy

- Installed VSDs into glycol system of new tanks/refurbished chiller extension;
 - Four x 4kW 415 volt 1440 rpm variable speed drive pumps = \$8,380.

Waste

- Introduced composting of coffee waste generated at Cellar Door;
- Reduced number of waste bin pickups;
- Replaced paper cups with ceramic cups (cost = \$120).

Waste Savings Achieved:

Saving approximately 5,200 paper cups per annum from landfill (cost saving = \$884 per

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ALCHEMY CORDIAL

ecoBiz Goals:

- Generally improve energy and water efficiency and minimise waste.

ecoBiz Achievements:

Energy

- Maximised length of production runs where possible;
- Appointed 'Lights' monitor (turns off factory lighting at end of day);
- Replacing all light bulbs with energy efficient bulbs.

Waste

- Reviewed printing costs - reduced waste generated through business correspondence, reuse materials where possible, and reduced generation of printed material;
- Recycle printer cartridges;
- Redesigned supplier cardboard cartons to reduce cardboard in packaging;
- Reusing shredded label backings for packaging;
- Implemented cardboard recycling for all cardboard packaging sourced from suppliers (including sugar bags) and provide plastic flavour drums to local boat builders for reuse;
- Collect and reuse disposable pallets from other local businesses (previously burned).

Waste Savings Achieved

- Reusing shredded label backings for packaging and recycling printer cartridges = 12 bins/year diverted from landfill equating to savings of \$300/year in landfill costs with a 6 month payback period.

REDLAND SHIRE COUNCIL

ecoBiz Goals:

- Retrofitting of existing buildings with energy, water and waste efficiencies;
- Carry out waste and water audits of buildings;
- Establish internal water, waste and energy efficiency awareness program.

ecoBiz Achievements:

Energy:

The Donald Simpson Leisure centre:

- Installed two door commercial refrigerator;
- Replaced existing light bulbs with tri phosphorus tubes or energy saver bulbs;
- Replaced Auditorium lights with high intensity fittings and clear diffuser to supply lighting levels required;
- Replacing pendent incandescent lights with energy saving fluorescent tubes;
- Mapped and marked the light switches for clarity of use;
- Replaced one Boiling Billy with a Zip Instant Boil;
- Replaced existing commercial freezer with smaller home freezer requiring less power;
- Laminated signs on front doors advising visitors to close door;
- Turning off the kitchen cool room when not in use or required for functions at the centre.

Energy Savings:

- Decrease in charges over the previous year of approximately 18%, and approx. 38% for April.

Cleveland Library Building:

- Switched off air conditioning to 1st floor on Saturdays;
- Replaced 7 day air conditioning clock with 365 day clock to allow for public holidays (Cost: \$1029.60);

Replaced wall mounted boiling water units with under sink units. Feature 7 day programmer allowing units to switch off when not in use.



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STRADBROKE FERRIES

ecoBiz Goals:

- To find a financially viable option for energy reduction within the entire company;
- To introduce water saving techniques and techniques to reduce waste production in all departments;
- To educate staff and guests in the importance of impact reduction.

ecoBiz Achievements:

Water:

- Installed low flow water fixtures in taps in the office buildings and workshop areas;
- Monitored water usage for vessels for two weeks prior to and post implementing water efficient equipment;
- Use existing high pressure industrial hose for wash-down of vessels at end of each working day. If possible, use high pressure hose for cleaning vessels at other times.

Water Savings Achieved:

- 2003/2004 financial year water use: 4500kL;
 - 2004/2005 financial year water use: 4000kL (pro-rata from 5 months of this period).
- Water consumption January to March 2004: 1704kL;
 - Water consumption January to March 2005: 860kL (844kL savings - equates to 50% reduction).

Education:

- Developed Barge Wash-down Procedure and Water Tank Filling Procedure;
- Staff Awareness: tips on individual water usage reduction, staff newsletter (monthly), "Environmental ideas and suggestion forms", posters and brochures in offices and on barges.

Waste:

- Replaced non-recycled office paper and toilet paper with recycled content paper;
- Installed 5 (240L) co-mingled recycling bins for weekly pickups.

Waste Savings Achieved:

- Saving 4m³ per week (200m³ per year) of waste going to landfill (cost is \$4.40/bin or \$22/week or \$1144/year).

SHELDON COLLEGE

ecoBiz Goals:

- Investigate methods to reduce electrical energy consumption by students and staff;
- Continue and enhance current recycling program (i.e. paper, cardboard, aluminium and plastics);
- Investigate ways to reduce reliance on town water supply.

ecoBiz Achievements:

- Set up a monitoring program whereby the students regularly monitor energy meters for detection of unexpected overnight loads/ leakages;

Posters made up for each classroom to remind and educate staff and students about turning off computers, lights, air conditioning and the need to recycle.

