

Schneider Electric NZ Ltd

Target Sustainability Programme

About the Company

Schneider Electric is an energy management provider. The Moncur Place, Christchurch site manufactures electrical accessories for the residential, commercial, industrial and utilities markets. The site also houses the national customer care centre and sales regional office.

Introduction to the Project

Schneider Electric joined the Christchurch City Council Target Sustainability Programme in 2010.

The Target Sustainability Programme supports business to reduce waste and to be energy and water efficient.

Schneider Electric's objective at the time of joining the programme was to reduce their waste and become more energy and water efficient.

Schneider Electric implemented a range of projects to reduce their waste and to improve their energy and water efficiency.

Waste Reduction Initiatives

Schneider Electric have achieved the following waste reduction results:

- Reduced total waste sent to landfill by 32% based on production KPIs. In total a 6 tonne reduction per year.
- Reduced recycled material by 25% based on production KPIs. In total a 19 tonne reduction per year.
- Together this was a saving of \$18,100 in production and disposal costs. (Approximately \$5,000 was saved in reduced paper towel usage, \$2,500 in reduced paper use (587 kg per year), \$2,000 in reduced printing and photocopy costs, \$1,000 in returning a leased printer that was no longer used, \$4,500 in a reduction of packaging used, \$2,000 in reduced waste disposal fees and \$1,100 saved from less bin hire (not required due to streamlining of waste flows and reduced collection).
- Saved approximately 960 direct labour hours per year due to streamlining of factory processes that have arisen from actions to reduce waste in transportation and administration roles.

Key Achievements

- **Reduced total waste sent to landfill by 32% based on production KPIs. In total a 6 tonne reduction per year**
- **Reduced recycled material by 25% based on production KPIs. In total a 19 tonne reduction per year**
- **Reduced electricity use by 12%. In total a saving of approximately 38,000 kWh (\$10,000) over 6 months**
- **Saved \$18,100 in production and waste disposal costs per year**
- **Reduced water use by 35% (1527 m³) per year**



Schneider Electric Building © Copyright



Waste collection units in café © Copyright

Schneider Electric implemented the following initiatives to reduce and recycle their waste:

- Identified all waste streams within the production work centres and implemented dedicated waste removal paths. Elimination of all general rubbish bins on the shop floor.
- Implemented projects to reduce paper generated in the warehouse. For example, rather than having both a label and a paper sheet listing parts to pick for a job, warehouse staff now just pick from the label. Staff also collect and store used single sided paper for 3 months, then give this to another department to use for printing draft documents.
- Conducted ergonomic assessments (as part of risk assessments) of using the waste systems and eliminating any manual handling problems.
- Undertook a second solid waste audit to identify further opportunities to reduce waste.
- Implemented a process where production staff no longer leave their work centre to remove materials waste. Waste is now collected by the material parts handler. This has reduced the amount of lean "waste" (time spent by an operator when they are not producing product, i.e. walking to put rubbish in the bin) in production and the factory has shown an increase in productivity.
- Improved the signage and availability of recycling collection units in the café.
- Implemented the locked print function (items will only be printed when staff enter their code at the photocopier) and double sided default function at all photocopiers.
- Replaced paper hand towels with electric hand dryers.
- Worked with suppliers to reduce packaging e.g. not supplying plastic bags, implementing reusable crates to transport items.



Work centre recycling information © Copyright

- Implemented colour coding of collection units to match the Christchurch City Council kerbside wheelie bin collection system.
- Placed paper recycling bins under all office desks and removed waste bins from under desks.
- Installed a UV filter system for drinking water (this has cut down the amount of bottled water used by staff during times of possible water contamination due to seismic activity).
- Encouraged staff to use waste minimisation practices as part of the staff induction video.

Schneider Electric attributes the successful reduction of waste in their Christchurch site to all the staff embracing the goal of waste reduction.

Energy Efficiency Initiatives

The main use of energy at Schneider Electric is electricity. Schneider Electric, over a 6 month period, have already reduced electricity use by 12%, saving 38,000 kWh (\$10,000) at the site. Schneider Electric implemented the following initiatives to increase their energy efficiency:

- Reviewed all heat pump timers to ensure settings were correct (it was found that most were being used appropriately).
- Replaced photocopiers and printers with modern/energy efficient models.
- Replaced the fridge and chest freezer with just one modern energy efficient fridge.



Electric hand dryer © Copyright

- Added a timer to the air compressor – ensuring it is only used as required during work hours.
- Established a compressed air leak detection procedure.
- Established a replacement programme for end of life hand tools to be changed from compressed air to direct electric driven.
- Improved the electricity metering system to allow remote monitoring of specific areas in the site.
- Placed switch off stickers on light switches.
- Encouraged staff to use energy efficient practices as part of the staff induction video.



Air compressor timer switch © Copyright

Water Efficiency Initiatives

Schneider Electric has reduced its water consumption by 1527 m³ per year. This corresponds to a 35% reduction in water use (based on average metered water consumption). Schneider Electric implemented the following initiatives to increase their water efficiency:

- Reduced water use (vehicle washing and irrigation) in line with Christchurch City Council's 2011/2012 water restrictions.
- Checked the seals on the dishwasher and dish steriliser regularly (as part of the normal maintenance).
- Implemented a water leak reporting procedure that is communicated to all staff.
- Encouraged staff to use water efficient practices as part of the staff induction video.

Summary

Since joining the Target Sustainability Programme, Schneider Electric have implemented a range of projects that have resulted in a reduction of waste and an improvement in energy and water efficiency.

"Target Sustainability helped us to achieve our Schneider Corporate objectives of being a world leader in energy management and environmental protection." Brian Wright, Plant General Manager.

Schneider Electric's future plans are to continue to look for ways to reduce and recycle their waste and to focus on implementing further energy and water efficiency projects.

Planned energy efficiency initiatives still to be undertaken include:

- De-tubing lights in factory side offices (planned for August 2012).
- Insulating domestic hot water pipes.
- Installing two stage thermostats on oil filled heaters to allow customisation of temperature to specific time periods.
- Implementing a Building Management System.
- Replacing mercury vapour lights in the warehouse with fluorescent tube fittings and controlling with lux sensors (as capex funding becomes available).

It is estimated that once fully implemented the energy efficiency initiatives will save approximately 30% of total energy used onsite.

Want more information? Visit www.target sustainability.co.nz