

## Countdown Church Corner

## Target Sustainability Programme

### About the Company

Countdown Church Corner is a Progressive Enterprises Ltd supermarket located at the corner of Riccarton Road and Hansons Lane in Upper Riccarton, Christchurch. The store sells general supermarket goods.

### Introduction to the Project

Countdown Church Corner joined the Christchurch City Council Target Sustainability Programme in 2009. The Target Sustainability Programme supports businesses to reduce waste and to be energy and water efficient.

Countdown Church Corner's objective at the time of joining the programme was to reduce waste sent to landfill and to become more energy and water efficient.

Countdown Church Corner implemented a range of projects to reduce waste sent to landfill and to improve energy efficiency.

### Key Achievements

- **Reduced waste sent to landfill by an estimated 49% (113 tonnes) per year.**
- **Reduced site electricity use by 7% (203,400 kWh) per year<sup>1</sup>, saving an estimated \$20,300 per year.**
- **Reduced total HVAC electricity use by an estimated 20% (190,400 kWh) per year, saving an estimated \$19,000 per year.**



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<sup>1</sup> These figures are based on comparison of data in 2010 and 2012 period.

### Waste Reduction Initiatives

Countdown Church Corner reduced the amount of waste sent to landfill by an estimated 49% (113 tonnes) per year (based on the weight of waste sent to landfill before and after initiatives were implemented)<sup>2</sup>.

Countdown Church Corner implemented the following initiatives to reduce and recycle waste:

- Ensured that the waste service provider recorded the weight of waste sent to landfill and recycling so the store could measure the improvement made through implemented initiatives.
- Implemented an organic waste collection system for butchery and deli waste. This reduced the amount of organic waste being sent to landfill by 6.6 tonnes in the first 5 months. The reduction is estimated to be 15.8 tonnes per year. A commercial collection service provider is taking this waste to the composting facility operating in Christchurch.
- Implemented a paper recycling collection system for non-confidential office paper. The store has installed paper recycling collection units throughout the office area. This reduced the amount of paper waste being sent to landfill by 10.8 tonnes in the first 7 months. The reduction is estimated to be 18.5 tonnes per year.

- Implemented a co-mingled recycling collection system in the staff cafeteria for plastic containers, glass bottles, metal cans and newspaper. This reduced the amount of co-mingled recyclable waste being sent to landfill by 1.4 tonnes in the first 5 months. The reduction is estimated to be 3.4 tonnes per year.
- Implemented a plastic recycling collection system to recycle polystyrene, coreflute boxes and plastic strapping.
- Minimised wastage by improving its "reduce to clear" policy and practices. This was achieved by improving stock control and "reduce to clear" pricing systems.
- Improved and expanded its Food Bank collection system for food items that are not saleable (i.e. damaged packaging) but are still good for consumption.

<sup>2</sup> The calculations are based on figures supplied by the waste collection service provider and compare the period 2009/2010, which is the period when the organisation joined the programme, and the 2012/2013 period, which is the period when the majority of the recycling initiatives were implemented. The 2012/2013 annual estimates are based on 5 months of real data and 7 months of extrapolated data, unless otherwise specified (i.e. paper).

# Energy Efficiency Initiatives

Countdown Church Corner reduced its overall electricity use by 7% (203,400 kWh) per year<sup>3</sup>, saving an estimated \$20,300 per year.

Countdown Church Corner implemented the following initiatives to increase energy efficiency:

- Upgraded and tuned its HVAC system. This initiative has achieved better space heating and cooling performance and resulted in a 4°C decrease in set point temperature. An expected saving per 1°C drop is 5% for a typical HVAC system. Based on this, the decrease in electricity use is estimated to be 190,400 kWh per year, saving an estimated \$19,000 per year.

- Repaired and replaced damaged night blinds on the upright freezers to reduce cooling losses from the freezers during the night. This initiative corresponds to an estimated electricity saving of 9,900 kWh per year and saving an estimated \$1,000 per year.

The estimated electricity saving is based on electricity use calculations that take into account parameters such as temperature differential between the refrigerator and the surrounding ambient temperature, size of refrigeration area and heat infiltration coefficient to determine heat transfer loads.

<sup>3</sup> These figures are based on comparison of data in 2010 and 2012 period.



Upgraded HVAC system © Copyright



Polystyrene recycling collection cage © Copyright



Co-mingled recycling bins at the point of collection © Copyright



Organics recycling bin in the butchery © Copyright



Paper recycling in one of the offices © Copyright



Paper recycling bins at the point of collection © Copyright

## Summary

Since joining the Target Sustainability Programme, Countdown Church Corner has implemented a range of projects that have resulted in a significant reduction in waste sent to landfill and an improvement in energy efficiency.

*“The Target Sustainability Programme gave direction to the store on where it could be more efficient in waste recycling and energy consumption. The team implemented a number of initiatives that helped reduce waste and, with more focus on energy use, even more gains and cost savings can be made.”* Leon Jarden, Countdown CODB Manager.

Countdown Church Corner plans to continue to look for ways to reduce and recycle waste and to implement further energy efficiency projects.

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