

Central Canterbury energy efficient lamp pilot project

<p>Sector: Residential, Central Canterbury, Orion network</p> <p>Measures: Replace regular incandescent lamps with energy efficient lamps</p> <p>Mechanism: Rebates on presentation of a voucher and special promotions in Central Canterbury.</p>	<p>Partners : Orion New Zealand Ltd and Meridian Energy Ltd</p> <p>Start date : June 2005</p> <p>End Date : October 2006</p> <p>Contact : Bruce Girdwood ,Senior Advisor Electricity Efficiency</p> <p>The evidence indicates that there are few, if any, electricity efficiency projects that can achieve as great a level of energy savings and peak demand reduction, for as little cost, as a household lighting campaign with the objective of replacing incandescent lamps with energy efficient lamps.</p>
TARGETS	
<p>Participation rate: 200,000 lamps into Orion network</p> <p>Lifecycle energy savings: Maximum of 150GWh</p> <p>Capacity savings: Maximum of 10 -13MW (winter)</p> <p>Investment cost: \$1.13m*</p> <p>Cost per kWh: 0.76c/kWh</p> <p>Marginal cost of generation: 6-8c/kWh</p> <p>Total saving to Christchurch consumers: Up to \$27m</p> <p>Greenhouse gas reductions: 93,000 tonnes over life, which is equivalent to:</p> <ul style="list-style-type: none"> • 18,000 cars off the road or • 29,000 acres of trees planted <p>Measurement: Monitoring in winter 06</p>	<p>Orion and Meridian Energy have formed a joint venture to partner with the Electricity Commission to co-fund this project.</p> <p>This is the first large-scale project of its kind in New Zealand. An important part of the programme is to assess a delivery mechanism for such a project and to quantify energy saving and peak demand benefits of energy efficient lamps in New Zealand households.</p> <p>The project aims to:</p> <ul style="list-style-type: none"> • source and promote high quality lamps that are well priced, attractive to consumers and of excellent technical quality; • establish a turnkey operation that could be repeated throughout New Zealand; • quantify annual energy and peak load reductions through a comprehensive measurement programme; • demonstrate that energy efficiency can deliver economic and environmental benefits without compromising lighting quality; • be cost effective.; and • stimulate the market for good quality lamps.
<p>Conventions Lifecycle savings are calculated using the assumed average life of the lamps. Caution: cumulative and lifetime savings are theoretical values that represent technical measure of lifetimes and are not adjusted for attrition.</p> <p>Assumptions Variable cost of energy of 18c/kWh over life of lamp. Average lamp life of 10,000hr. Average avoided greenhouse gas emission calculated as 0.625kg per kWh avoided generation.</p>	

* Includes contributions from the Electricity Commission, Orion New Zealand Ltd, Meridian Energy Ltd and consumers.