



## **Assessment of VERs from New Zealand Household Energy Efficient Lighting Projects (HELP)**

**This document is paraphrased from Energy Mad's HELP Project Design Document.**

**Project Summary:** The HELP project was implemented by Energy Mad Limited. Energy Mad is a New Zealand based company with a mandate to reduce enough electricity to power Europe. In rolling out the project, Energy Mad partnered with electricity network utilities and retailer outlets throughout New Zealand to offer consumers five Ecobulbs for \$10.00, using a voucher redemption process. The installation of these Ecobulbs in the place of incandescent lamps leads to a direct reduction in fossil fuel electricity generation.

### **Verification of Emissions Savings:**

**Verification of Emissions Savings is fundamental to ensuring that the credits that are purchased actually represent 1 tonne of greenhouse gas reduction. Verification needs to occur to an acceptable standard and be conducted by an independent 3<sup>rd</sup> party.**

The HELP was designed in accordance with the Clean Development Mechanism Approved Methodology 0046 (CDM AM0046), entitled "*Distribution of efficient light bulbs to households*".

The HELP included baseline and project monitoring of statistically valid sample groups of households to measure the actual electricity savings achieved. The monitoring data formed the basis for Energy Mad to claim verified emission reductions. This means that the savings from these Carbon Credits can be guaranteed to have occurred, unlike credits created through light bulbs distributed through the Australian Government Greenhouse Friendly scheme, or the NSW GGAS scheme.

Energy Mad engaged United Nations Framework Convention on Climate Change appointed Designated Operational Entity, Det Norske Veritas Certification, to carry out the independent validation of the HELP design. The New Zealand HELP achieved independent validation on 16 January 2008 to Voluntary Carbon Standard 2007. Det Norske Veritas Certification completed the independent verification of the claimed HELP emission reductions to Voluntary Carbon Standard 2007. Energy Mad also obtained legal opinion from Goodman Steven Tavendale Reid providing confirmation of Energy Mad's legal ownership of the emission reductions.

### **Financial Additionality:**

**Financial additionality tests ensure that a project wouldn't have occurred as a business as usual proposition, and that the project proponent was reliant upon funds from the sale of carbon credits to be viable.**

The Energy Mad project has satisfied the requirements of the Voluntary Carbon Standard 2007 of the financial additionality of the project by proving that the project faced investment barriers to the uptake of energy saving light bulbs.

A 2003 study from the Building Research Association of NZ Household Energy End-use Project (HEEP), found that only 4.5% of household lighting appliances were CFLs. This is primarily due to the high upfront cost of CFLs (~\$5) compared with Incandescent lamps (~\$1), and the fact that NZ householders are not aware of the financial benefits of CFLs.

Energy Mad has therefore sought since 2004 to use the sale of "carbon credits" as a funding mechanism to effect a market transformation from incandescent lighting appliances to "Ecobulb" CFLs via regional Household Energy Efficient Lighting Projects (HELP) throughout New Zealand.

#### **Environmental Additionality:**

**Environmental Additionality ensures that the carbon credits represent emission reductions that occur beyond what would have occurred in the presence of legislation requirements or in shifts in market demand.**

The Energy Mad project has satisfied the requirements of the Voluntary Carbon Standard 2007 of the financial additionality of the project by proving that the project faced investment barriers to the uptake of energy saving light bulbs.

The project sampled both the baseline and project groups to deduce the energy savings that occurred from the project in a statistically valid way. This method takes into account effects that market dynamics have in increasing use of CFLs in the absence of the project as well as those from government legislation.

The energy savings that were verified were then converted to greenhouse gas savings; and these form the basis of the VERs awarded to the project.

#### **Leakage:**

There are no adverse emissions effects from this project not captured within the project's boundaries. Common leakage scenarios are where a project reduces emissions within its boundaries but causes effects within the market that lead to increased emissions elsewhere. Leakage is a common problem in forestry projects, where starving the market of wood from one source (through carbon capture) often leads to that wood being harvested unsustainably somewhere else due to the need to sustain global supply of wood to the market.

**Permanence:** The greenhouse gases saved from this project are permanent and cannot be undone.

**Other Benefits:** This project engages and educates householders in energy efficiency; which is the most cost effective and therefore immediate path to reducing emissions from the electricity sector.