2002 Environmental Education - State and Local Government Grant **$100,000**

CLIMATE CAM®

overview of the project

The City of Newcastle has been monitoring greenhouse gas emissions since 2001 through its *ClimateCam* website. In 2002 Newcastle City Council received a grant from the Environmental Trust to expand its *ClimateCam* program.

The existing website was upgraded to make it more user-friendly and interactive. It provides monthly consumption data on water and electricity consumption, greenhouse gases from waste to landfill, and estimates for consumption and greenhouse gas emissions from gas and transport in Newcastle. The website also records the number of trees planted by Council and reports the carbon dioxide absorbed by those trees. An interactive map that breaks the City up into 15 zones allows residents to see the electricity consumption of their suburb.

A giant billboard, updated hourly to reflect the actual electricity consumption of the City for the year, was installed in a prominent location in the city centre. Council also initiated a pilot project *ClimateCam for Schools* which assisted six local schools to manage and report on their electricity consumption.

The official launch of the ClimateCam billboard in the city centre

how the project was carried out

Enhancement of the *ClimateCam* website required modifications to the way in which data was stored and managed. A partnership was formed with EnergyAustralia who agreed to provide electricity consumption data from the 15 substations in Newcastle along with historical data that allows for analysis of trends in electricity consumption. A software specialist was engaged to develop a database and management system that allows data to flow from EnergyAustralia to Council in 15 minute intervals and to update the website and billboard simultaneously. A simplified intranet interface was also developed that allows project managers to verify and manage the various data sets.

An architect was engaged to design the *ClimateCam* billboard which was then constructed by Council staff in consultation with EnergyAustralia. A moving digital sign was incorporated below the billboard to display environmental messages and promote *ClimateCam*.

The *ClimateCam for Schools* pilot project made use of EnergyAustralia's WebGraphs, an interactive energy reporting program which can be used by students, teachers and administrative staff to measure and monitor the school's electricity consumption. Six schools were selected to participate in the pilot program and teachers from each school attended an introductory workshop. Once the monitoring program commenced, monthly emails allowed schools to share their progress and to exchange ideas on how to implement the program in different areas of the school.

outcomes now and in the future

The *ClimateCam* billboard and website were launched in April 2007. Newcastle City Council is the first organisation in the world to report on the electricity consumption of the community in this level of detail. The electricity consumption data presented on *ClimateCam* is reported on Newcastle's NBN News weekly.

The project has resulted in a greatly expanded data set being incorporated into the *ClimateCam* website. The website has recorded a reduction in the projected growth of greenhouse gas emissions from the City during the reporting period. This suggests that the program has been successful in modifying the behaviour of people in relation to energy consumption.

The experience gained during the *ClimateCam for Schools* has allowed for the development of a transferable product that will save schools money, provide enhanced educational experiences and increase energy and water efficiency. This is currently being rolled out to all 350 schools across the Hunter region.

benefits, challenges & lessons learned

The *ClimateCam* program is highly transferable to other council areas within Australia and has attracted interest both within Australia and overseas. Newcastle City Council is currently liaising with the Greater London Authority for a London-based *ClimateCam*.

Enhancement of the *ClimateCam* website presented challenges for the project team due because the high level computer expertise that was required was not available within Council. The volume of data received from EnergyAustralia was also an issue requiring the development of a simple web-based system that would allow Council's staff to access data and create graphs without disrupting the constant flow of data.

The development of the website and billboard presented opportunities for cross-unit coordination within Council which has led to the strengthening of staff relationships and built staff skills in-house.

our environment it's a living thing

NSW Environmental TRUST

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