CAPE TOWN'S SEEKS HIGH-TECH SOLUTIONS TO TRAFFIC LIGHT FAILURE AND SUBSEQUENT TRAFFIC JAMS

February 2006 was a month that most Capetonians will recall – but not with any pleasure.

Eskom power outages reduced every traffic-light controlled intersection in the city to a four way stop street and traffic to a crawl, causing substantial financial losses in our transport driven economy.

"The City of Cape Town had long been aware of the need to conserve traffic light electricity in general and, in particular, to keep them operational during major power failures and those blackouts provided further incentive to our search for solutions", says Elizabeth Thompson, Mayoral Committee Member for Transport, Roads and Stormwater. "We have, accordingly, constantly urged our suppliers to source low voltage, low maintenance components for our traffic lights. Replacing conventional light bulbs in traffic lights with light emitting diodes or LEDs proved extremely encouraging."

LED's use seven times less electricity than conventional light bulbs in traffic lights and while ordinary light bulbs have high maintenance costs – they need to be replaced every three months – LEDs last for a minimum of five years.

The City hopes to have installed LEDs in all its 1 300 traffic light – controlled intersections by 2015. To keep all forms of traffic lights functioning during blackouts, two hundred uninterrupted power systems (UPS), costing R50 000 each, have been installed at major traffic intersections and more will be installed as budgetary constraints allow.

The City has now embarked on a promising pilot project to power them by sunlight rather than electricity. Working together with the National Energy Efficiency Agency, it is powering LED equipped traffic lights with energy derived from solar panels – a step which will improve traffic safety during black outs while further reducing operational costs.

"The recently installed, solar-powered, LED-equipped traffic lights at the intersection of Montagu's Gift and Blackbird Streets, has an integral uninterrupted power system, and is designed to operate independently of an electricity supply" says Eddie Chinnappen, Executive Director : Transport, Roads

and Stormwater. “The three point six square metre solar panel that powers the traffic lights is placed on a conventional, six metre light pole and is angled at 30 degrees south to capture the maximum amount of sun energy.”

The system will be tested for three months to see if it remains functional and the City will then take a decision on the viability of the project.

“Our ultimate goal for Cape Town is a wireless-driven, computer controlled and monitored traffic light system which is energy efficient and not dependent upon the vicissitudes of our electricity supply,” Thompson said “The solar-panel powered, LED equipped traffic lights backed up by UPS systems for extra security, is part of a continuing endeavour to make traffic light failures - and the resultant gridlock -something we can permanently relegate to the past.”

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