



## **Arcola Theatre is Now Hydrogen Fuel Cell Powered**

London's Arcola Theatre, one of the UK's leading independent venues, has installed a hydrogen fuel cell to power its café/bar and selected main house shows. The fuel cell operates almost silently, producing nothing but electricity and clean water.

The 5kW fuel cell system takes pride of place in the foyer of the theatre accompanied by displays describing the benefits and challenges posed by this ground breaking technology. The prominent location of the fuel cell and the challenge of relying entirely upon it provide both a powerful educational tool and a source of motivation for reducing energy use.

The first show to be powered by the fuel cell, Simple8's *The Living Unknown Soldier*, produced by Strawberry Vale, may well be London's premier ecologically sustainable show -- the environmental impact of all aspects of the production have been minimised, including set construction, marketing, company travel and show lighting. The production's environmental footprint will be evaluated by leading sustainability advisers Global Action Plan and the lessons learned published for the benefit of other practitioners.

The lighting for the show has a peak power consumption of 4.5kW, up to 60% less than comparable lighting installations. This is made possible through extensive use of LED lighting, provided by leading lighting supplier White Light, and careful use of high-efficiency tungsten lamps provided by ETC, maker of the energy-saving Source Four luminaire.

In addition Arcola's bar/café has been upgraded to an eco-bar serving organic and fair-trade refreshments, illuminated by a low energy LED lighting system supplied by leading manufacturer PixelRange. The lighting for the entire café/bar now consumes under 500W, a saving of 60%, with the added benefit of providing near infinite flexibility in light level and color for perfect daytime operation as well as for café/bar performances.

The IdaTech ElectraGen fuel cell system has been supplied by London Hydrogen Partnership with additional funding from the UK Department for Culture Media & Sport, Arts Council England, the London Borough of Hackney and the Mayor of London's Greening London Theatre Initiative. Hydrogen for the fuel cell has been supplied by BOC gases.

This project is part of Arcola Theatre's extensive sustainability-related activities--under the banner of Arcola Energy, spearheaded by Dr **Ben Todd**, the theatre's executive director, who also works as a consultant in the fuel cell industry. He said: "The arts have a crucial role to play in elucidating and motivating the changes in lifestyle necessary to deliver an equitable future for all humankind. Through Arcola Energy, Arcola Theatre is demonstrating that bold changes can be made and that making them offers exciting opportunities for new creative partnerships."

He added, "When we launched Arcola Energy in July 2007 we planned to install renewable technologies within 12 months, this is unlikely to be possible due restrictions on what we can do as a leaseholder and the protracted business of securing the freehold for our premises--a problem faced by many organizations--the installation of the fuel cell and our present emphasis on greening our operations are examples of what can be done now whilst infrastructure projects are under development."

**Ken Livingstone**, the mayor of London, said, "The Arcola Theatre is a good example of why London's cultural sector is so dynamic and successful. Arcola is leading the theatre industry in developing this premiere sustainable production and I know that many other theatres are now keen to follow. The Living Unknown Soldier is unique in that it is the world's first production to be powered by a fuel cell, supplied and sponsored by the London Hydrogen Partnership. Every individual, every business, every shop, and every theatre has a part to play in tackling climate change and this lead by Arcola Theatre is just what we need."

 [www.arcolaenergy.com](http://www.arcolaenergy.com)

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<http://www.lightingandsoundamerica.com/news/story.asp?ID=M9274Q>