



Arcola Theatre Is Now Hydrogen Fuel Cell Powered

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Energy-efficient lighting now in place at the Arcola Theatre

"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" - Ken Livingstone, Mayor of London



London's Arcola Theatre, one of the UK's leading independent venues, has installed a hydrogen fuel cell to power its cafe 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 popular energy saving Source Four luminaire.

In addition Arcola's bar/cafe 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 cafe/bar now consumes under 500 watts, a saving of 60%, with the added benefit of providing near infinite flexibility in light level and colour for perfect daytime operation as well as for cafe/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 also noted that: "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 organisations. 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."

The fuel cell started operation on Tuesday 12th February, the opening night of *The Living Unknown Soldier*. Tours and photo-calls can be arranged until 15th March. For further details about the show can be found [here](#).

For further information, contact:

Dr Ben Todd at Arcola Theatre on 07974 240 612 or ben@arcolatheatre.com

Notes:

Arcola Theatre was founded in 2000 by Artistic Director Mehmet Ergen and Executive Producer Leyla Nazli, when they converted a textile factory on the borders of Stoke Newington/Dalston into one of London's largest and most adaptable venues. Arcola Theatre has won a numerous awards, including a *Time Out Live Award* in 2003 and 2006. It has gained a reputation for staging innovative work by renowned actors, writers and directors, as well as maintaining a strong commitment to involving the local community. Arcola Energy, launched in July 2007 aims to harness the creativity of arts, sciences and engineering to tackle climate change and encourage environmental sustainability.

[Arcola Theatre>](#)

[Arcola Energy>](#)

The Living Unknown Soldier is "brave young company" (Evening Standard) Simple8's second production following their critically acclaimed *Les Enfants Du Paradis* (* * * * * Times). A war story, a ghost story, an absurd comedy and a chilling tragedy, it is about an amnesiac soldier in 1918. It is deliberately not a play about sustainability, rather a play of its own merit produced sustainably.

Strawberry Vale Productions is an innovative independent production company.

London Hydrogen Partnership (LHP), an initiative of the Mayor of London, works towards a hydrogen economy for London and the UK. [More information>](#)

IdaTech is a global leader in the development and manufacturing of clean and reliable PEM fuel cell solutions. IdaTech's unique technologies provide solutions for a wide range of applications from portable to off grid power and directly support efforts towards sustainable energy.

Natural Power Solutions (NPSL) sourced and installed the fuel cell for this project on behalf of the LHP. NPSL provide alternative energy solutions utilising sustainable energy technologies such as hydrogen fuel cells, solar PV and solar thermal. [More information>](#)

BOC is a member of The Linde Group. An industrial and speciality gases provider, the company supplies compressed and bulk gases, chemicals and equipment. [More information>](#)

White Light is a leading supplier of lighting to the entertainment industry including hire, sales, installation and service. [More information>](#)

ETC is a manufacturer of high efficiency entertainment and architectural lighting, dedicated to providing customers with the best and most innovative lighting, dimming and control products. [More information>](#)

PixelRange is a manufacturer of high performance LED luminaires for entertainment and architectural applications created with concern for the environment to inspire lighting design. [More information>](#)

The Mayor of London's Greening London Theatre initiative is part of the Climate Change Action Plan for London, one of the most comprehensive and ambitious in the world, which aims to deliver a 60% reduction in London's CO2 emissions (relative to 1990 levels) by 2025.

Arts Council England is Arcola Theatre's primary funder and is actively investigating ways to make the arts sector more sustainable. [More information>](#)

The London Borough of Hackney won the award for best performing public sector organisation in Mayor of London's Green Procurement Awards 2007. [More information>](#)

Global Action Plan is the practical environmental charity that helps people to make positive changes in their workplace, home, school, and community; achieving measurable results by taking action on energy, waste, water and transport. In the UK, the organisation has helped thousands of people and organisations to make substantial environmental and financial savings. [More information>](#)

Fuel Cells were invented in 1839 have been under development ever since. They were used during the 1960's Apollo space missions and are currently under development for applications ranging from mobile phones to cars to homes to locomotives.

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