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**MEDIA  
PLANET**

# SUSTAINABLE SOLUTIONS

## TAKE A STAND AND SET YOUR BUSINESS APART

**Read on to find out** how to work more efficiently, cleaner and in an eco-friendly manner without spending a fortune.

**3**  
TIPS

**TO A MORE  
ECO-CONSCIOUS  
BUSINESS**

Sustainability works!  
Success stories about helping the environment while increasing ROI



LA's eco-guardian  
Discover the effort being made right in your backyard



NEWS

# Fuel cells deliver a 24/7 clean energy choice

**A fuel cell is an appliance that generates electricity and heat through a series of chemical reactions—all without burning fuel. And they're making a new clean, local generation option feasible and affordable in the alternative energy sector.**

Stationary fuel cells can significantly cut energy bills and reduce CO<sub>2</sub> emissions by close to 40 percent while offering productivity levels well above that of solar panels which depend on daylight and favorable weather. In fact, fuel cells are one of the most promising energy generation solutions for localized energy generation.

Their arrival on the market is

not a moment too soon, because the need for cleaner, more efficient energy is one of the biggest challenges facing us.

### Energy generation

The value of fuel cells is clear: they reduce emissions and increase efficiency.

Scientists and engineers are designing solutions that provide better efficiencies while balancing cost and reliability. Some sources claim that combined heat and power systems (CHP) can reach roughly 60 percent efficiency, while others claim 90 percent. In contrast, a 2007 National Energy Technology Laboratory study measured energy efficiency rates and found coal burning at 32 percent efficiency and natural gas at slightly

over 50 percent (and at 40 percent efficiency after transmission).

If fuel cells meet the thresholds they claim, energy efficiency has a new energy source that building owners can install to reduce both cost and emissions.

### How they work

Stationary fuel cells are available for homes and businesses to produce cleaner energy that reduces grid demand.

ClearEdge Power is one of the innovative companies commercializing a natural gas fuel cell for California. Their 5kW fuel cell provides base load, continuous electrical power and heat to homes and businesses. Their ClearEdge5 appliances provide power at the point of use, maximizing efficiency

gain while minimizing transmission loss. This type of distributed generation offers additional energy efficiencies even after one switches out their old windows for better solutions.

By replacing peak-load energy that is often billed at higher rates by utility providers, the ClearEdge5 claims to offer significant energy savings while reducing CO<sub>2</sub> emissions by up to 40 percent.

### Incentives and financing

Governments at all levels are beginning to support the viability of fuel cells with regulatory and financial incentives.

Currently there are Federal tax incentives available. In addition, 12 regional California governments are implementing financing pro-

grams (AB811) to allow citizens to finance their energy efficiency investments through property tax programs. To drive distributed generation, California utilities offer financial rebates through the Self Generation Incentive Programs (SGIPs) to those who implement energy systems such as fuel cells.

### The future of fuel cells


With significant funding from ARRA recovery funds; widespread research on efficiency; and support to leverage existing infrastructures—it's no wonder that fuel cells are a rising star in the alternative energy mix of California's green economy.

CAROLYN ALLEN

editorial@mediaplanet.com

**Powering the 21st Century.  
One fuel cell at a time.**

ClearEdge Power delivers revolutionary fuel cell systems that provide highly efficient energy right at the point of use. By cleanly converting natural gas, the **ClearEdge5** MicroCHP energy system provides **both** heat and power for homes and businesses.



The ClearEdge5 is a smart, clean energy solution that can:

Reduce Your Utility Bills by <b>up to 50%</b>	Cut CO <sub>2</sub> Emissions by <b>over 1/3</b>	Produce More Energy than Solar by <b>11x</b>
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**ClearEdge | POWER**  
Delivering Smart Energy Today™

www.ClearEdgePower.com  
Phone: 877-257-3343  
7175 NW Evergreen Parkway,  
Building 100, Hillsboro, OR 97124  
info@ClearEdgePower.com

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**3**  
**GREAT TIPS!**

**Draw at dawn...**

**1** As the days get hotter, close curtains to block out the sun and stop it from heating up your home.

**Draw at dusk...**

**2** As the days get chillier, closing your curtains at dusk will stop heat escaping through windows.

**Turn off when turning in**

**3** Turn your heating down before bedtime saves energy, and once you're tucked in you'll never notice the difference.

SOURCE: www.futurefriendly.com