



Fujitsu America



Supermarket Hospitality Education **Datacenter** Healthcare Industrial Government/Municipal Office Special

energy
 e n v i r o n m e n t a l
 R

Fujitsu America's Innovation Ensures Sustainability

with the PureCell® Model 200 Fuel Cell Powerplant

The forecast is sunny and the future is bright at Fujitsu America



"Because fuel cells are among the cleanest power-generating technologies available today, this installation is only the beginning of our relationship with UTC Power. Fuel cells operate without combustion. Hydrogen fuel and oxygen from the air are combined in the fuel cell to produce electricity, heat and water. We are pleased to bring this green alternative energy solution to Silicon Valley and make our contribution to the Valley's critical clean air initiative."

*Marty W. Engh, Sr.
 Director of Facilities Services
 Fujitsu America*

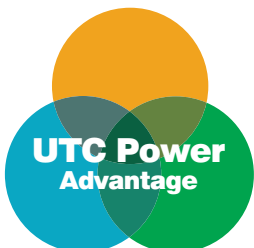
From Sunnyvale, California, Fujitsu America supports its parent company with a lineup of world-class services. Losing power for even an hour could disrupt vital business processes and damage Fujitsu's ability to provide the comprehensive information technology solutions their customers have come to expect.

To improve energy efficiency while demonstrating their commitment to environmental responsibility and stewardship, Fujitsu America chose an exciting new facility enhancement: the PureCell® combined heat and power system.

Equipment:	PureCell® Model 200 combined heat and power solution
Commissioned:	August 2007
Location:	Sunnyvale, California
Provides:	Continuous power for electrical needs Space heating Backup power
Availability:	95%

● Energy Productivity

It's all about doing more with less. More than half of the energy potential in traditional power generation goes up the stack as waste heat. In contrast, the UTC Power fuel cell power system converts heat exhaust into heating and cooling, turning potential waste into useable energy. While central powerplants achieve conversion percentages in the lower 30s, the PureCell® system can attain energy conversion efficiencies up to 90 percent. High system efficiencies translate into greater fuel utilization, thereby conserving natural resources and energy.



● Harvest the productivity. ● Value the security. ● Preserve the planet.



PureCell® Solution Advantages

Energy Productivity

- System efficiencies increased to 90% (33% for traditional power sources)
- Energy costs reduced
- Natural resources conserved

Energy Security

- Continuous operation provided
- Business services protected
- Community safety enhanced

Energy Responsibility

- Carbon footprint reduced
- Water conserved
- Harmful emissions minimized
- Sound pollution eliminated

Proven Experience

- 50 years of fuel cell experience
- Sole fuel cell supplier to NASA for manned space missions for over 40 years
- Over 1.3 billion kilowatt hours of commercial fuel cell operation



PP0100 - R110807

● **Energy Security**

It's all about reliability and not being vulnerable to power outages. The PureCell® Model 200 provides protection from the economic losses that can result from business interruption. In fact, if there is a power outage, this fuel cell will continue to provide electricity and heating. At Fujitsu America the fuel cell system is also tied to the existing backup generator to provide cleaner and more efficient grid-independent operation.

"For on-site power applications, the UTC Power PureCell® system is the proven world leader in long-term fuel cell reliability. Collectively, our stationary fuel cells have accumulated more than 1.3 billion kilowatt hours of operational experience in 19 countries. The technology offers Fujitsu its best option for a combined heat and power system."

*Jan van Dokkum
President, UTC Power*

● **Energy Responsibility**



Fujitsu is proving that sustainability makes economic sense. While reducing its carbon footprint, it's also conserving natural resources. The UTC Power fuel cell will reduce Fujitsu's carbon footprint by 780 tons each year. To achieve the same positive environmental impact, 160 acres* of forest would need to be planted.



The power generated by a megawatt of fuel cells saves over 4 million gallons† of water each year that would otherwise be wasted by conventional electrical generation. That's enough water to fill more than 6 Olympic-size swimming pools. Water conservation is especially important as humanity battles to conserve precious water resources.



Reduction of harmful emissions like nitrogen oxides (NOx), is yet another environmental benefit of fuel cell technology. NOx emissions will be reduced at Fujitsu by almost 3 tons each year, which equates to the same environmental benefit as removing 140 cars‡ from the road.

* Each acre of forest assumed to absorb 1.3 ton of carbon per year (Ref: Intergovernmental Panel on Climate Change).

† Based on the average use of 500 gal/MWhr of power generation plants in the U.S. (Ref: U.S. Geological Survey).

‡ Each car assumed to generate 38 lb NOx/year (Ref: U.S. EPA).



UTC Power

A United Technologies Company

1.866.900.POWER www.utcpower.com