Mohegan Sun Resort and Casino

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energy Reinvented

Mohegan Sun Resort and Casino Invests in the Future
with the PureCell® Model 200 Fuel Cell Powerplant

The Mohegan Sun bets on fuel cell technology – and wins!

"The Mohegan Tribe has always been committed to the environment and we are proud to be leading the way with innovative, clean technology solutions. The PureCell® Model 200 fuel cell powerplants have allowed us to grow our business while minimizing our environmental impact on our community."

Tom Acevedo
Chief of Staff, Mohegan Sun Resort and Casino

Protecting the environment has always been a priority for the Mohegan Tribe. In 2002, when expansion plans were created for the Mohegan Sun Resort and Casino, the tribe looked for clean ways to offset the additional car emissions their expansion plan would generate. Based on this initiative, two PureCell® Model 200 fuel cell powerplants were selected to provide highly-efficient, clean and reliable energy to the new hotel.

Equipment:	Two PureCell® Model 200 natural gas fueled powerplants
Commissioned:	March 2002
Location:	Uncasville, Connecticut
Provides:	Grid connect power Domestic hot water and space heating
Availability:	99%
Load Hours of Operation:	90,670 hours as of June 2007

Energy Productivity

Each PureCell® fuel cell powerplant, designed and manufactured by UTC Power, provides 200 kilowatts of electricity and up to 925,000 BTU of heat used to produce domestic hot water and space heating for the facility. By capturing and using the exhaust heat, the PureCell® solution is able to achieve an overall fuel utilization rate of more than 90 percent, far greater than the 33 percent typical of a central powerplant.

"We are proud to have sold the first fuel cell to a Native American Reservation. The PureCell® Model 200 provides the Mohegan Tribe with an environmentally sound, reliable power solution that is ideal for hotel and casino applications."

Jan van Dokkum
President, UTC Power

UTC Power Advantage

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*

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Energy Responsibility

The Mohegan Sun tribe's dedication to the environment doesn't end with their energy choice. They are also dedicated to their community. The indoor installation is open to the public, allowing visitors to view the fuel cells and learn about the benefits of the technology.

Mohegan Sun provided most of the funding for the project, with the assistance of the Department of Energy (DOE).

The Mohegan Sun is proving that sustainability makes economic sense. While reducing its carbon footprint, it's also conserving natural resources. The UTC Power fuel cells will reduce the resort's carbon footprint by 1,500 tons each year. To achieve the same positive environmental impact, 320 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 Mohegan Sun by almost 6 tons each year, which equates to the same environmental benefit as removing 290 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).

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