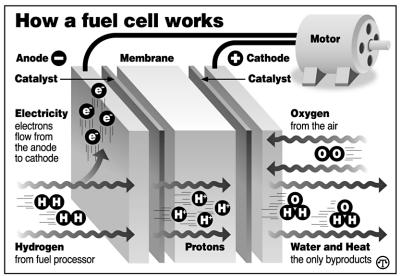
## Fueling Automobiles Without Gasoline



Juan Thomassie

Fuel cell technology may help vehicles run more efficiently, as well as reducing our dependence on fossil fuels.

(NAPSA)—In some communities, buses that used to burn diesel fuel are now testing technology that could greatly reduce the world's reliance on fossil fuels.

The fuel cell, after more than 50 years in development, is finally beginning to fulfill its potential as a gasoline alternative. Fuel cells silently convert natural gas, various liquid hydrocarbons or hydrogen fuel into electricity from an electrochemical reaction between hydrogen and oxygen. The technology is more efficient than internal combustion engines because the cells do not create as much unused heat.

What's more, fuel cells produce energy without combustion—heat and water vapor are the only byproducts—so the technology holds great promise for reducing greenhouse gases, thought to be responsible for global warming.

Petroleum companies recognize the advantages fuel cells can provide and are working with auto manufacturers and federal agencies to develop and test this environmentally clean technology. To date, efforts to put fuel cells to practical use have met obstacles,

\_\_\_\_\_\_\_

the most significant of which are storing and delivering hydrogen gas to the cell. The most promising means for real-world use seems to be extracting hydrogen from methanol—a complex and expensive process.

However, most experts believe the obstacles will be overcome and fuel cells will provide power for affordable cars and trucks within 10 years. Beyond the next decade, the technology may very well become the accepted method for heating and cooling homes and powering most consumer electronics products.

Although petroleum products have been our most efficient and affordable power source for more than 100 years, the resource is not renewable. Eventually, we will need to produce energy without the use of petroleum products, and the petroleum industry is investigating options for sustainable, alternative energy sources.

To learn more about energy issues, visit www.oil360.org, a comprehensive site hosted by Sarkeys Energy Center, the University of Oklahoma.