Mr. John Huey
Director of Environmental Affairs
Delaware North Companies Parks & Resorts

Testimony
Before the Committee on Resources
United States House of Representatives

Hearing on the Use of Hydrogen Fuel Cell Technology in the National Park System

Delaware North Companies Parks & Resorts (DNC) is a concessionaire to the National Park Service (NPS), with operations at Grand Canyon, Sequoia, Yellowstone, and Yosemite National Parks. DNC also owns and/or operates businesses in several state parks, scenic locations, and at the National Aeronautics and Space Administration (NASA) in Florida.

DNC's business activities in national parks are very diverse, including the luxurious Ahwahnee hotel, wilderness campgrounds, horse stables and other guest recreation activities, and a public transportation fleet of buses in Yosemite National Park. DNC operates a 100-room lodge, restaurant and store in Sequoia National Park, as well as retail and grocery stores and food service facilities in Grand Canyon and Yellowstone National Parks.

Delaware North and other national park concessionaires work diligently to mitigate the environmental impact our activities and national park visitors have on the delicate ecosystems where we operate. We have aggressive recycling programs; we've reduced the toxic and hazardous materials we use, including cleaning products, motor oils, paints and solvents; we manage our hazardous waste in accordance with federal regulations and best practices; and we conserve water and energy in many progressive ways. We even take steps to reduce noise and light pollution in our parks.

While the efforts of the National Park Service and its concessionaires in reducing the human impact on our parks are impressive and commendable, there are still many areas where we can improve. Hydrogen fuel cell technology offers opportunities to contribute to some significant potential improvements.

Vehicle Issues

To meet their missions to protect national park resources and provide safe and enjoyable experiences to its visitors, The National Park Service and its concessionaires operate large fleets of vehicles, including tour buses and support vehicles. Many of the vehicles in these fleets are environmentally friendly, such as electric, hybrid, and natural gas powered vehicles. But, most vehicles are still gas and diesel-powered combustion engines.

Complaints about gas and diesel-powered combustion engines are that they are not efficient (they burn lots of fuel), they pollute the air, and they are loud. Upgrading and modernizing these fleets improve performance in all these areas, but there are many obstacles that inhibit progress. For instance, the distance many buses have to travel in our national parks is far beyond what electric power can take them.

Using propane and natural gas to power vehicles is considered environmentally friendly, but doing so isn't always an option in national parks. The major challenge I've been told about is storage capability. There is a belief among some people that there would be resistance to constructing new, large, aboveground storage tanks for natural gas and propane in our national parks.

Hydrogen fuel cell technology offers a very interesting alternative to the usual resource-depleting and air-polluting way of moving people and material goods around our national parks. Technology experts can tell you about the capabilities, challenges, and costs related to hydrogen fuel cells, but I'll share with you some of the reasons for introducing this technology to our national parks.

Many people are concerned about the pollution that combustion engines contribute to in our national parks. There are also concerns for the noise caused by large vehicle engines. Hydrogen fuel cells are purported to be pollution-free and quiet. Frankly, I don't think I need to say anymore on these subjects. Clean air and quiet transportation in our national parks seem like worthy goals to me.

Two other issues that are very important, but perhaps less obvious, are storage of liquid fuels, and the potential for fuel spills. Briefly, transporting liquid fuels into national parks, and storing it in underground and aboveground tanks presents some potential problems. A simple vehicle accident could seriously damage a stream or sensitive meadow. A resulting fire could be devastating. Also, leaking storage tanks, especially underground tanks, could have serious consequences. When Delaware North assumed operations in Yosemite, we inherited thirty-one leaking underground storage tanks. In the past decade, we've invested millions of dollars removing these tanks and repairing the damage caused by them. The use of hydrogen fuel cells would reduce the need for storing liquid fuel in national parks; thereby reducing the potential for damage caused by spills and leaks.

Hydrogen fuel cells would also reduce our dependence on petroleum.

Facility Energy Issues

Electricity is used in national parks for all the same purposes found outside of the parks. Guest and staff lodging, shops, administrative and support buildings and equipment, televisions, appliances, etc., all draw from energy sources outside of the parks. Some wilderness camps don't even have electricity. I can't tell you how all the electricity is generated to serve our parks, but we can assume that hydroelectric dams, coal-fired and nuclear generators are among them.

All of these sources of electricity offer benefits and potential problems. Without going into great detail on issues that are well known, I'll just offer a couple of simple observations. Urban and wilderness areas have common concerns about electricity; it's expensive, generating it has environmental consequences, and power lines are ugly.

Even wind power has its detractors, and it's considered one of the most environmentally friendly sources of energy. Windmills are unsightly and harmful to birds, and the electricity is delivered on those same ugly wires that spoil our views. And, if the lines don't spoil our views, they're put underground, and that's an expensive and disruptive was to deliver electricity.

And, those ugly power lines are most ugly in national parks.

Hydrogen fuel cells offer potential relief for all of these issues. I'll leave the economic and technical details to the experts, but please allow me to briefly discuss the benefits to our national parks.

National park operations include infrastructure support activities, resource protection, and guest services in a myriad of geographic settings. Some settings are relatively urban, but many are very isolated. Hydrogen fuel cell technology has the potential for providing electrical power to all of these settings. And, this technology would eliminate the need for power lines and trenching through fragile ecosystems that the National Park Service is committed to protect and conserve.

Closing Comments

Every energy technology has its benefits and challenges. Hydrogen fuel cell technology has the potential for resolving many of the challenges, including air pollution, dependence on petroleum, noise reduction, and better scenery. It seems to me that our national parks are perfect places to introduce and study this new technology.