At world-renowned National Laboratories BROOKHAVEN, OAK RIDGE, PACIFIC NORTHWEST and NREL, we are maximizing scientific investments for DOE and the nation.

This year will mark the 60th anniversary of Battelle's service to the U.S. Department of Energy and its predecessor agencies—a sustained effort that has helped the nation and the world solve many major problems through science and technology.

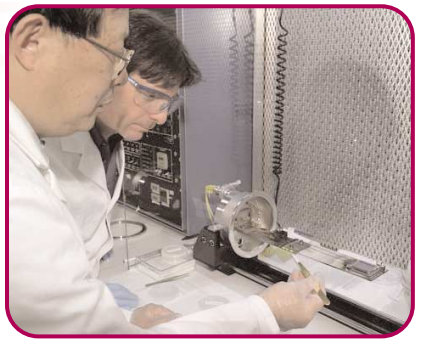
"DOE's national laboratories are major forces in solving leading national and global problems—from energy to national security to the environment."

*— **Bill Madia,** Executive Vice President, DOE Market Sector, Battelle*

The DOE-Battelle partnership continues to grow stronger. Through the cooperation and integration of four national laboratories where Battelle serves DOE, we are maximizing scientific investments for the nation. These laboratories—Brookhaven National Laboratory (operated by Brookhaven Science Associates, LLC), Oak Ridge National Laboratory (operated by UT-Battelle, LLC), Pacific Northwest National Laboratory, and the National Renewable Energy Laboratory (where Battelle serves as a major subcontractor)—are working very closely together on DOE missions and bringing added value to the customer through integration of science and technology efforts. We are bringing together the great minds in joint research programs, instituting proven management practices, and leveraging the use of world-class facilities to ensure that DOE and the nation receive the full value of our long-standing partnership.

Energy

The DOE national laboratories are global leaders in energy technology breakthroughs—from fuel cells to efficient solar cells to power systems. Researchers at Pacific Northwest, NREL, and Oak Ridge are collaborating on exciting fuel cell initiatives. These innovations are



Courtesy NREL

The National Renewable Energy Laboratory has developed some of the world's most efficient solar energy cells.

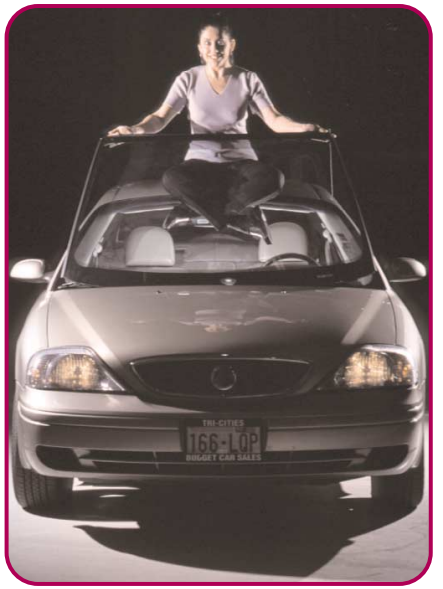
expected to provide future benefits to the public in energy supply and efficiency.

Through the Solid-State Energy Conversion Alliance, a public-private partnership jointly managed with the National Energy Technology Laboratory, Pacific Northwest is leading laboratory and industry teams in developing the core technologies for wide-scale deployment of solid oxide fuel cells. The alliance's aim is to create an affordable modular fuel cell system for vehicles, stationary power, and military applications.

Courtesy ORNL

Nuclear Safeguards and Security Systems (Nucsafe), a new business located near Oak Ridge, manufactures a suitcase-size neutron detector for detecting explosives at airports, border crossings and ports of entry. UT-Battelle has helped Nucsafe commercialize the technology through its support of the Center for Entrepreneurial Growth, which focuses on taking technology developed at DOE facilities and using it to form new companies.

Pacific Northwest scientists continue to develop cleaner, more efficient diesel emissions technologies. In the post-combustion system area, researchers are focusing on analysis of development and growth of particulates in exhaust systems and the interactions between exhaust gas and the surfaces of exhaust systems.



Elizabeth Vela is part of a team at Pacific Northwest National Laboratory that worked with PNNL's automotive and glass manufacturing partners to develop a prototype windshield that's 30 percent lighter—yet retains key optical, thermal and safety properties.

At Oak Ridge, a new high-temperature superconductor research lab was opened as part of the Accelerated Control Conductor Initiative—a collaborative effort between Oak Ridge and Los Alamos National Laboratory. The initiative will help accelerate the development of power cables, motors, generators, and transformers.

In the solar energy area, researchers at NREL recently developed a highly efficient cadmium telluride solar cell—one of the most efficient in the world.