



**Jeremy Bentham, Royal Dutch Shell and Donald L. Paul, Chevron Corporation
Lead Group of Five Recipients of Inaugural IPHE Annual Awards**

Pablo Ruiz, Director of Energy Research for the European Commission, and Dr. Alain Bugat, Chairman of the Atomic Energy Commission of France (CEA) presented the inaugural Excellence in Leadership and Technical Achievement awards of the International Partnership for the Hydrogen Economy (IPHE) during the recent 2006 World Hydrogen Energy Congress (WHEC) in Lyon, France. The IPHE Annual Awards Program was launched this year to formally recognize and honor noteworthy international hydrogen and fuel cell achievements that fulfill the objectives of the IPHE. Detailed information on all of the award winners can be found on the IPHE website at www.iphe.net.

MR. JEREMY BENTHAM, PRESIDENT OF GLOBAL BUSINESS ENVIRONMENT, ROYAL DUTCH SHELL was recognized for his leading international role in promoting a global vision of the hydrogen economy and in marshalling the resources and international partnerships necessary to accelerate the transition to the hydrogen economy. Mr. Bentham, a former Chief Executive of Shell Hydrogen, has been a constant champion of hydrogen and fuel cell policies, projects, regulations, and codes and standards necessary to support the hydrogen economy at both the national and international levels. Mr. Bentham has led the effort to bring hydrogen closer to public acceptance through Shell's innovative fleet of fueling stations in Amsterdam, Reykjavik, Luxemborg, and Washington, DC designed to inform the public and policy makers on the clean, safe and efficient use of hydrogen as an energy carrier. He is also recognized for forging stakeholder consensus and public/private partnerships in support of collaborative international research as Chair of the European Hydrogen and Fuel Cell Technology Platform Advisory Council.



Jeremy Bentham accepts the IPHE Excellence in Leadership Award during the Welcome Reception of the 2006 World Hydrogen Conference in Lyon, France



Jeffrey Jacobs, VP Strategy, Planning & Development for Hydrogen Systems and Fuels, Chevron Technology Ventures, receives IPHE Excellence in Leadership award on behalf of Dr. Donald L. Paul.

DR. DONALD L. PAUL, VICE PRESIDENT AND CHIEF TECHNOLOGY OFFICER OF CHEVRON CORPORATION, received the IPHE Excellence in Leadership Award in recognition of his vision and leadership in stewarding the global transition to the hydrogen economy. As an officer of one of the world's largest and most technologically innovative energy companies, Dr. Paul is a leading advocate of the transformative potential of hydrogen and fuel cell technologies. Through his "Practical Hydrogen" theme, Dr. Paul has charted a business oriented, common sense pathway toward the hydrogen economy and has employed this theme to inform policymakers at the international, national and local levels of the benefits of, and special requirements for, the deployment of

hydrogen and fuel cell technology. In March 2006 with Dr. Paul's leadership, Chevron inaugurated the HYRoad demonstration project in Oakland, California which brings hydrogen and fuel cell technology into the daily lives of the citizens of Oakland through hydrogen buses that are used throughout the city, while providing economy to the general public in real world settings.

Three outstanding hydrogen technology projects received the **IPHE Technical Achievement award**. The IPHE Technical Achievement award recognizes individuals, organizations, or international projects from the public or private sector that have significantly accelerated the transition to the international hydrogen economy and through technology, increased the knowledge of the hydrogen economy among policymakers and the general public.

THE CUTE-ECTOS-STEP-Beijing:CUTE and Hyfleet:CUTE projects have been jointly selected in recognition of their substantial role in advancing the global public and commercial acceptance of hydrogen fuel cell transportation systems. The projects feature a combined 36 hydrogen fuel cell powered buses that provide regular public transportation in 12 metropolitan areas in the European Union (Amsterdam, Barcelona, Hamburg, London, Luxembourg, Madrid, Porto, Stockholm, and Stuttgart), Iceland (Reykjavik), West Australia (Perth) and Beijing (China). Each city has also erected the corresponding infrastructure required to regularly supply hydrogen and to maintain the buses.



Walter Rau, Sr. Manager and Head of Fuel Cell Bus Projects at DaimlerChrysler accepts IPHE Technical Achievement Award on behalf of the CUTE-ECTOS-STEP-Beijing:CUTE and Hyfleet:CUTE projects.

The projects have been successful in demonstrating that an emission-free and low-noise public transportation system can be achieved. They have led to technology improvements including fuel cells with longer lifetimes; the advent of small-scale steam reformer facilities for local hydrogen production; improved methods to handle impurities in the hydrogen supply chain, and an affordable hydrogen-safe garage system.



Mr. Izuho Hirano from the Japan Automobile Research Institute, and Mr. Jinichi Tomuro from the Engineering Advancement Association of Japan, represented the Japan Hydrogen and Fuel Cell Demonstration Project.

Motors, Hino Motors, Honda, Mitsubishi Motors, Nissan, Suzuki, and Toyota. Collectively, these companies have supplied over 60 fuel cell vehicles for research at the project site.

The JHFC Project constructed 12 refueling stations to study various hydrogen production and supply technology options. The stations provide data and operating experience on a variety of refueling methods, including deliveries of liquid hydrogen generated elsewhere; on-site electrolysis; and on-site reformation of different fuels.

PROJECT HYDROSOL is a recipient of the IPHE Technical Achievement award in recognition of its significant potential to advance the production of renewable based hydrogen. The project seeks to develop a cost effective and efficient means of producing hydrogen from solar energy and is the world's first closed, solar-thermochemical cycle in operation that is capable of continuous hydrogen production.

Project HYDROSOL'S structure embodies the IPHE international dimension through participation of research organizations from Denmark, Germany, Greece, and the United Kingdom. Results from this landmark research project promise the potential for long-term production of renewable based hydrogen, particularly for regions of the world that lack indigenous resources but are endowed with ample solar energy.



Dr. Christos Agrafiotis, Coordinatator, receives the IPHE Technical Achievement on behalf of Project HYDOSOL

The IPHE was established in 2003 as an international institution to accelerate the transition to a global hydrogen economy. The IPHE Partners include Australia, Brazil, Canada, China, European Commission, France, Germany, Iceland, India, Italy, Japan, Republic of Korea, New Zealand, Norway, Russian Federation, United Kingdom, and the United States.

The purpose of the IPHE is to provide a mechanism for partners to organize, coordinate and implement effective, efficient, and focused international research, development, demonstration and commercial utilization activities related to hydrogen and fuel cell technologies.

For more information on the IPHE and the Annual Award winners please visit www.iphe.net