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LARSON INTRODUCES LEGISLATION TO AUTHORIZE PRESIDENT'S $1.2 BILLION FUEL CELL INITIATIVE

WASHINGTON, D.C.- U.S. Congressman John B. Larson (CT-01) introduced legislation last week that would authorize $1.2 billion over five years for the hydrogen and fuel cell technology initiative proposed by President Bush in his 2003 State of the Union address. Specifically, the bill, H.R. 1395, would fully authorize funding for the President's fiscal year 2004 Hydrogen, Fuel Cells, and Infrastructure Technologies budget request at $182 million and provide an additional $1.018 billion across the following four years to fully fund the initiative through fiscal year 2008.

Larson stated: "Pursing the development of this technology strikes at the very core of our national security, economic stability, and environmental conscience. We have before us the technology to provide clean, reliable energy for every person, home, business, and vehicle in America. With this technology, there is the opportunity to end America's reliance on foreign energy sources while at the same time creating quality jobs for the next century in a new and expanding technological field."

The President's proposed hydrogen fuel initiative is aimed at reversing America's growing dependence on foreign oil by developing the technology for commercially viable hydrogen-powered fuel cells to power cars, buses,

trucks, homes and businesses with no pollution or greenhouse gases. Over the next five years, the proposed hydrogen fuel initiative would develop the technologies and infrastructure to produce, store, and distribute hydrogen for use in fuel cell vehicles and electricity generation.

In 2000, Congressman Larson first introduced the Energy Independence Act in the House, which would have provided $1 billion to advance the development of hydrogen and fuel cell technology. Senator Chris Dodd introduced companion legislation in the Senate. Larson recently held a forum on fuel cell technology with industry and academic leaders as well as state legislators to promote the further development and understanding of this technology and the opportunities and challenges it offers Connecticut.

Highlights of legislation:

H.R. 1395 HYDROGEN AND FUEL CELL TECHNOLOGY AUTHORIZATION BILL

Fuel Cell Technology for Transportation and Stationary Power Generation:

- Reducing the production cost of hydrogen or gasoline fueled vehicle fuel cell power systems (including hydrogen storage costs) to $45 per kilowatt in 2010 at production levels of 500,000 units per year and increasing the electrical efficiency of natural gas or propane fueled stationary fuel cell systems to 40 percent in 2010
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Validating solutions to the performance and vehicle interface issues of hydrogen fuel cell vehicles to demonstrate an increase in durability in a vehicle fleet of such fuel cells to 2000 hours by 2008

- Focus on achieving low cost, high-efficiency, fuel flexible, modular fuel cell power systems, improved manufacturing production and processes, high-temperature membranes, cost effective fuel processing for natural gas, fuel cell stack and system reliability and durability, and freeze/cold start capability.

Hydrogen Programs:

- Develop and demonstrate distributed hydrogen generation technology that will reduce the cost (before taxes) of producing hydrogen from natural gas, when produced in large quantities, to $1.50 per gallon of gasoline equivalent at fueling stations in 2010 and developing and demonstrating hydrogen production from renewable energy resources at a cost of $2.60 per kilogram in 2008, using biomass-based production

- Developing and validating a hydrogen storage technology with 1) specific energy of 2.0 kilowatt hours per kilogram (6 weight percent capacity), and energy density of 1.5 kilowatt hours per liter by 2010; and 2) specific energy of 3.0 kilowatt hours per kilogram (9

weight percent capacity), and energy density of 2.7 kilowatt hours per liter by 2015

- Validating a projected cost of $3.00 per gallon gasoline equivalent at fueling stations, using infrastructure and vehicle interface technologies, by 2008
- Draft technical specifications for an international agreement on a global technology regulation for hydrogen fuel cell vehicles and infrastructure
- Educate key target audiences, including students and teachers, local and State government representatives, and large scale end users, on the concept of a hydrogen economy and how it may affect them and initiate tests of prototype hydrogen-from-gas production technologies and award projects for hydrogen production and capture of associated carbon dioxide
- Initiate a hydrogen-from-coal initiative and identify appropriate institutions to establish the feasibility of emerging alternate coal-based hydrogen technologies, investigate advanced separation technologies, and utilize a combination of experimental and advanced computational methods to determine optimal reaction chemistries for producing hydrogen-from-coal-derived fuels
- Initiate a nuclear hydrogen initiative to develop and demonstrate the feasibility of nuclear energy for

the large-scale, emission-free production of hydrogen

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Congressman Larson Serves on the House Science Committee