2011 POLICY ACTIVITY WRAPUP - FUEL CELLS & HYDROGEN

This wrap-up includes 2011 legislation and policy only. Visit our free searchable State Fuel Cell and Hydrogen database (http://www.fuelcells.org/info/statedatabase.html) for a comprehensive compilation of all state fuel cell and hydrogen policies, initiatives and incentives as well as stationary fuel cell installations, fuel cell vehicle demonstrations and hydrogen fueling stations.

CALIFORNIA

Clean Energy Update Program – Assembly Bill 14 (2011) requires California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) to administer a Clean Energy Upgrade Program to be developed by the State Energy Resources Conservation and Development Commission. The Program will reduce overall costs to the property owners of a loan provided by an applicant to finance the installation of distributed generation renewable energy sources, electric vehicle charging infrastructure, or energy or water efficiency improvements on real property, by providing a reserve or other financial assistance. Instead of direct subsidies to property owners, the program will provide a reserve or other credit enhancements to qualified lenders, in order to decrease risk for lenders and reduce interest rates for borrowers. Improvements financed by the program are for residential projects of three units or fewer or a commercial project that costs less $25,000 in total.

In addition, AB 14 amends the definitions of "renewable energy" and "advanced transportation technologies" in the Public Resources Code:

- "Renewable energy" means a device or technology that conserves or produces heat, processes heat, space heating, water heating, steam, space cooling, refrigeration, mechanical energy, electricity, or energy in any form convertible to these uses, that does not expend or use conventional energy fuels. This definition includes ultra low-emission equipment for energy generation based on thermal energy systems such as natural gas turbines and fuel cells.
- "Advanced transportation technologies" means emerging commercially competitive transportation-related technologies identified by the authority as capable of creating long-term, high value-added jobs for Californians while enhancing the state's commitment to energy conservation, pollution reduction, and transportation efficiency. In the definition, advanced transportation technologies include fuel cells.

Clean Technology and Renewable Energy Job Training – Senate Bill 148 (2011) calls for the creation of partnership academies that will lead to the creation of good paying jobs in industries and businesses that are in compliance with the state's environmental protection laws and regulations. It will also prepare young people to work in clean technology businesses or renewable energy businesses, and provide skilled workforces for the products and services for energy or water conservation, renewable energy, pollution reduction, or other technologies that improve the environment in furtherance of state environmental laws. The definition of

"renewable energy business" includes the installation, repair, maintenance, or related activities necessary to produce energy from wind, photovoltaic, solar thermal, geothermal, biomass, including cellulosic ethanol, biodiesel, and biomass power, green waste, and fuel cells.

Renewable Auction Mechanism (RAM) – RAM is a simplified and market-based procurement mechanism for renewable distributed generation (DG) projects up to 20 megawatts (MW) on the system side of the meter. RAM streamlines the procurement process for developers, utilities, and regulators, allowing bidders to set their own price, providing a simple standard contract for each utility, and allowing all projects to be submitted to the CPUC through an expedited regulatory review process. To begin the program, the California Public Utilities Commission (CPUC) authorized utilities to procure 1,000 MW through RAM. Fuel cells using renewable fuels are eligible.

Self-Generation Incentive Program (SGIP) – Initiated in 2001, SGIP offers incentives to customers generating their own electricity. Technologies that achieve reductions of GHG emissions are eligible for the program, including wind turbines, fuel cells, organic rankine cycle/waste heat capture, pressure reduction turbines, advanced energy storage, and CHP gas turbines, micro-turbines, and internal combustion engines. Participants receive up-front and performance-based incentives. These incentives apply only to the portion of the generation that serves a project's on-site electric load. Set to expire at the end of 2011, CPUC approved a proposed decision implementing various program changes required by SB 412, allowing incentives to be available through the end of 2015.

CONNECTICUT

Alpha Program – Launched in March 2011 by the Connecticut Clean Energy Fund (which became part of the newly created Clean Energy Finance and Investment Authority in July 2011)**,** the Alpha Program funds development and testing of emerging clean energy technologies to establish their technical viability and commercial potential. Companies undertaking early-stage clean energy technology development can apply for funding of up to $200,000 per project. Eligible projects can be full systems, system components or manufacturing innovations in technology areas, and include fuel cells and hydrogen production.

Connecticut Hydrogen and Fuel Cell Deployment Transportation Strategy: 2011-2050 – In accordance with Public Act 09-186, the Connecticut Department of Transportation (ConnDOT) and the Connecticut Center for Advanced Technology, Inc. (CCAT) submitted to the joint standing committees of the General Assembly a strategic plan entitled, *"Connecticut Hydrogen and Fuel Cell Deployment Transportation Strategy: 2011-2050."* Information in the Plan suggests that a transition to a hydrogen economy and deployment of zero-emission, hydrogen fuel cell buses state-wide will increase transportation efficiency, improve environmental performance, increase economic development, and create new jobs. The technical and financial arrangements needed for transition from conventional vehicles and bus fleets will require initial investment by the state and federal government and private industry; however, the report

indicates that this investment is well justified and will become a necessity as concerns about public health and climate change increase, and the supply of conventional fuels becomes more limited. In addition, the report suggests that there are many specific locations for hydrogen refueling stations along state highways or at locations that could potentially be utilized by state fleets or other public or private-sector fleets.

Local Option to Exempt Building Permit Fees for Renewable Energy Projects – Connecticut has authorized municipalities to pass a local ordinance to exempt "Class I" renewable energy projects from paying building permit fees. Class I renewable energy projects include energy derived fuel cells using renewable or non-renewable fuels. Emissions limits apply to electricity generated by sustainable biomass facilities.

DELAWARE

Delaware-made fuel cells eligible for state's Renewable Portfolio Standard – Senate Bill 124, passed in June 2011, permits energy from Delaware-manufactured fuel cells to meet part of Delmarva Power's renewable energy production requirements. The fuel cells must be capable of being powered by renewable fuels.

INDIANA

Clean Energy Portfolio Standard – The Standard sets a voluntary goal of 10 percent clean energy by 2025, based on 2010 levels. Fifty percent of qualifying energy obtained by Indiana utilities participating in the CPS must come from within the state. Fuel cell and hydrogen technologies are eligible. Only public utilities may participate in the program.

MICHIGAN

Hydrogen Transition Act/Renewable Energy Objective – In 2011, Minnesota established a policy that permits hydrogen production from renewables to count toward a utility's renewable energy objective.

MINNESOTA

Strengthening State Agency Environmental, Energy and Transportation Sustainability – Executive Order 11-13 (2011) requires state departments and agencies to develop sustainability goals, programs and policies that reduce greenhouse gas emissions and reduce petroleum consumption by state vehicles. Under the Act's "Model" Sustainability Plan, state agencies should reduce dependence on petroleum based fuels used in transportation. One suggested method is by increasing the use of renewable transportation fuels derived from agricultural

products, including ethanol, biodiesel fuel, and hydrogen fuels, and fuels derived from waste products.

MISSOURI

Motor Vehicle Emissions Inspection Program Exemption – Under House Bill No. 354, vehicles powered exclusively by electric or hydrogen power, or by fuels other than gasoline, are exempted from motor vehicle emissions inspection.

Renewable Energy Generation Zone Property Tax Abatement – As of August 2011, local areas can be designated as Renewable Energy Generation Zones and receive property tax abatements as part of the Enhanced Enterprise Zone program. An eligible business must be located in a Missouri Enhanced Enterprise Zone (EEZ). Individual business eligibility will be determined by the zone, based on creation of sustainable jobs in a targeted industry or demonstrated impact on local industry cluster development. Targeted industries include the renewably-powered fuel cell industry.

NEVADA

Alternative Fuel Vehicle HOV Lane and Parking Fee Exemptions – Assembly Bill No. 511 (2011) requires that, with limited exceptions, each local authority establish a parking program for qualified alternative fuel vehicle, permitting the vehicle to park without the payment of a parking fee at certain times in certain public parking lots, parking areas and metered parking zones. The bill also authorizes the use of a qualified alternative fuel vehicle in high-occupancy vehicle lanes irrespective of the occupancy of the vehicle, if the Department of Transportation has adopted the necessary regulations. The Bill defines the term “qualified alternative fuel vehicle” to include both plug-in vehicles powered by an electric motor, and vehicles which are powered by an alternative fuel and meet specified federal emissions standards. The definition of “Qualified alternative fuel” is defined to mean hydrogen, compressed natural gas, or propane.

NEW JERSEY

Edison Innovation Green Growth Fund – The Fund offers loans up to $1 million with a performance grant component to support technology companies with Class I renewable energy or energy efficiency products or systems that have achieved "proof of concept" and successful independent beta results, have begun generating commercial revenues, and will receive 1:1 match funding by time of loan closing. Companies working on renewably-powered fuel cells are eligible.

NEW YORK

Alternative Fuel Tax Exemption and Rate Reduction – E85, compressed natural gas, and hydrogen fuel that is used exclusively to operate a motor vehicle engine is exempt from state sales and use taxes.

New York State Energy Research and Development Authority (NYSERDA) fuel cell funding – NYSERDA has announced an incentive program for businesses, hospitals or other large power consumers interested in installing fuel cells that will provide as much as $21.6 million through 2015. The program provides an incentive toward the cost of fuel cell installation, plus payments over the first three years of operation based on power produced. Companies can collect a total payment of up to $1 million for fuel cells, based on the size of the project. The program is funded under the state's Renewable Portfolio Standard (RPS), which is administered by NYSERDA using funds collected from utility ratepayers. Funding is available to New York ratepayers who pay the RPS charge, but is primarily intended for businesses, government facilities, apartment complexes or other large enterprises. Extra incentives are available to sites that serve a public benefit, such as hospitals, police stations or disaster shelters.

OHIO

2011 Long-Term Renewable Energy Credits – The Cleveland Electric Illuminating Company, Ohio Edison Company and The Toledo Edison Company (FirstEnergy Ohio Utilities) are soliciting proposals for long term contracts for Renewable Energy Credits (RECs) in compliance with the state's renewable energy resource requirements. Navigant Consulting Inc is administering the Request for Proposals (RFP), establishing the right to purchase from qualified proposers 20,000 RECs in each calendar year beginning in 2011 through 2020 from Public Utilities Commission of Ohio (PUCO)-certified (or eligible to be PUCO certified), non-solar, renewable energy resource generating facilities within the State of Ohio. No energy or capacity will be purchased under the RFP. Ohio's definition of "advanced energy resource" includes any fuel cell used in the generation of electricity, including, but not limited to, a proton exchange membrane fuel cell, phosphoric acid fuel cell, molten carbonate fuel cell, or solid oxide fuel cell.

Alternative Fuel Transportation Grant Program – The program funds up to 80 percent of the cost of purchasing and installing fueling facilities offering E85 and fuel blends containing at least 20 percent biodiesel. As of July 2011, the program adds natural gas, liquefied petroleum gas or propane, hydrogen, electricity, and any fuel that the U.S. Department of Energy determines, by final rule, to be substantially not petroleum. The Program also funds up to 80 percent of the incremental cost of purchasing and using alternative fuel for businesses, public school systems and local governments.

OREGON

Alternative Fuel Vehicle (AFV) and Fueling Infrastructure Tax Credit – Under Oregon's Residential Energy Tax Credit Program, qualified residents can receive tax credits for purchasing new alternative fuel vehicles, converting vehicles to operate on an alternative fuel, and the purchase of alternative fuel infrastructure. Tax credits can be claimed for both a vehicle and fueling infrastructure. Although the AFV credit expired at the end of 2011, the fueling infrastructure credit is available through 2017. Qualified alternative fuels include hydrogen.

RHODE ISLAND

Distributed Generation Standard Contracts Act – The Act establishes a feed-in tariff for new distributed renewable energy generators up to 5 MW, requiring electric distribution companies to enter into standard contracts for an aggregate capacity of 40 MW or more by the end of 2014. Standard contracts include a fixed payment rate and a 15-year term. Eligible renewables include fuel cells using renewable resources.

TEXAS

Alternative Fueling Facilities Program – The Program will help to provide fueling facilities for alternative fuel in nonattainment areas by providing a grant for each eligible facility to offset the cost of those facilities. An entity that constructs, reconstructs, or acquires an alternative fueling facility is eligible to participate in the program. The definition of alternative fuel under the program includes hydrogen.

VERMONT

Comprehensive Energy Plan 2011 – In Volume 2, "Facts, Analysis, and Recommendations," the report makes the following fuel cell-related recommendations:

Vehicles: To meet Vermont's climate change goals and lower transport-related petroleum consumption, clean vehicles - such as hybrid-electric, electric, cleaner internal combustion engines and fuel cell vehicles - must be introduced more rapidly in the state. The report urges development of policies to address infrastructure needs and provision of incentives for early purchasers.

Stationary Power: The Department of Public Service is required to prepare a 20-year electrical energy plan for the state, which must include an assessment of all energy resources available to the state for electrical generation or to supply electrical power, including fuel cells. Vermont also supports the development of Distributed Utility Planning and encourages utilities to

consider all available technologies to meet customer demand in the most efficient and cost-effective way, including the use of fuel cells.

VIRGINIA

State Vehicles to be fueled with alternative fuels – A 2011 Executive Order requires the state to develop a plan to fuel government vehicles with alternative fuels. The fleet – 10,000 strong – could be fueled by hydrogen, propane, biofuels, electricity or natural gas. A determination of the "best available path" for the state fleet is due by May 2012.

WEST VIRGINIA

Alternative Fuel Vehicle (AFV) and AFV Infrastructure Tax Credits – Eligible taxpayers that convert a vehicle to operate exclusively on an alternative fuel, or purchase a new original equipment manufacturer dedicated or bi-fuel AFV, are eligible for tax credits. Qualifying alternative fuel vehicles may use hydrogen fuel. A tax credit may be taken for 35 percent of the vehicle purchase price, or 50 percent of the vehicle conversion cost, up to $7,500 for vehicles with a gross vehicle weight rating (GVWR) up to 26,000 lbs. and up to $25,000 for vehicles with a GVWR greater than or equal to 26,000 lbs.

A tax credit is also available for the construction, or purchase and installation, of qualified alternative fueling infrastructure. A credit may be taken for 50 percent of the total allowable costs associated with construction or purchase and installation of the equipment, with a maximum of $250,000. Qualified home fueling infrastructure is eligible for the 50 percent credit, up to $10,000. If the infrastructure is accessible for public use, the credit will be multiplied by 1.25, with a maximum amount $312,500. The maximum tax credit allowed will decrease to $200,000 in 2014 and to $150,000 in 2016. Qualified alternative fuels include hydrogen.

The tax credits will expire at the end of 2021.