



2008 POLICY ACTIVITY WRAPUP - FUEL CELLS & HYDROGEN

This wrap-up includes 2008 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.

FEDERAL

Fuel cell investment tax credits extended until 2016 – Passed in the Emergency Economic Stabilization Act of 2008, the revised tax credit statute will allow purchasers to write off 30% up to \$3,000 per kilowatt for industrial purchasers, and \$1,000/kW for residential purchasers, off the cost of a qualified fuel cell unit from their tax liability. The Investment Tax Credit (ITC) was extended to allow all utilities and telecommunications firms to take advantage of the credit. The legislation also allows the credit to be used against Alternative Minimum Tax (AMT). Persons subject to AMT to take the credit against that portion of their tax liability.

ALASKA

New state grant funding program, fuel cell projects are eligible - The Alaska Legislature established the Renewable Energy Grant Fund and the Renewable Energy Grant Recommendation Program in 2008. The Alaska Energy Authority (AEA) holds responsibility for administering the program, recommending grants for feasibility studies, reconnaissance studies, energy resource monitoring, and/or work related to the design and construction of an eligible project. The Legislature is responsible for final approval and funding of all grant projects. Projects eligible for grant recommendations include those that generate energy from, or involve the direct use of, a facility that generates electricity from fuel cells that use hydrogen from renewable energy resources or natural gas.

ARIZONA

Net metering rules adopted - The Arizona Corporation Commission (ACC) adopted net metering rules in October 2008. Net metering is available to customers generating electricity from solar, wind, hydroelectric, geothermal, biomass, biogas, combined heat and power (CHP) or fuel cell technologies. Systems may not exceed 125% of the customer's total connected load. If there is no available load data for the customer, the generating system may not exceed the customer's electric service drop capacity. Salt River Project (SRP) and municipal utilities do not fall under the jurisdiction of the ACC and are not subject to the rules.

Buckeye Green Building Program - The town of Buckeye's Green Building Program, adopted in 2008, offers guidelines and certification for commercial and residential buildings. Fuel cells using hydrogen generated from solar energy or from natural gas are included as an option in the building evaluation checklist.

CALIFORNIA

Renewable Energy Standard is raised, includes fuel cells – In November 2008, California's governor signed an executive order that streamlines California's renewable energy project approval process and increases the state's Renewable Energy Standard to 33 percent renewable power by 2020. Eligible technologies include fuel cells using renewable fuels.

Self-Generation Incentive Program (SGIP) raises cap for fuel cell and wind projects to 3MW - Beginning 01/2008, in compliance with Assembly Bill 2778, the Self-Generation Incentive Program is limited to wind and fuel cell (both renewable and nonrenewable) technologies. Maximum system size is 5MW, and the cap on incentives is raised to the first 3MW of system output (formerly 1MW). For renewable fuel cell technologies, the minimum system size per site is 30 kW. There are no minimum size criteria for fuel cell technologies operating on non-renewable fuel.

Air Resources Board adds Clarity FCV to rebate program – The Fueling Alternatives program offers vehicle incentive rebates to promote the use and production of alternative fuel vehicles. The 2008 Honda FCX Clarity fuel cell vehicle qualifies under the program for a \$5,000 rebate.

FLORIDA

Energy Bill HB 7135 includes several hydrogen and fuel cell-related measures - Passed in June 2008, the bill provides:

- A **tax exemption** for the sale or use of: a) hydrogen-powered vehicles, materials incorporated into hydrogen-powered vehicles, and hydrogen-fueling stations, up to a limit of \$2 million in tax each state fiscal year for all taxpayers, and b) commercial stationary hydrogen fuel cells, up to a limit of \$1 million in tax each state fiscal year for all taxpayers.
- A **Renewable Energy Technologies Investment Tax Credit** for 75% of all capital costs, operation and maintenance costs, and research and development costs incurred between July 1, 2006, and June 30, 2010, up to a limit of \$1.5 million per state fiscal year for all taxpayers, and limited to a maximum of \$12,000 per fuel cell, in connection with an investment in commercial stationary hydrogen fuel cells in the state, including, but not limited to, the costs of constructing, installing, and equipping such technologies in the state.
- Investment in efficiency and conservation measures in state agency facilities in the **Guaranteed Energy, Water, and Wastewater Performance Savings Contracting Act** to reduce the amount of energy and water consumed and wastewater produced, and to produce immediate and long-term savings. The term, "energy, water, and wastewater efficiency and conservation measure," includes energy storage systems such as fuel cells.

Net Metering rules expanded, includes renewable hydrogen - The Florida Public Service Commission expanded customer-owned net metering rules to include more renewable generation, including hydrogen produced from sources other than fossil fuels (up to 2 MW).

HAWAII

Roadmap released for geothermally-produced hydrogen – The report, Analysis of Geothermally Produced Hydrogen on the Big Island of Hawaii: A Roadmap for the Way Forward, which was produced for Hawaii's Department of Business, Economic Development and Tourism and the Hawaii Natural Energy Institute in September 2008, delineates the optimal initial pathways for the development of a hydrogen energy infrastructure through 2025 based on the geothermal resources of the Big Island of

Hawaii. The Hawaii Renewable Hydrogen Program was established in 2006 to encourage the achievement of a renewable hydrogen economy in the state.

Legislature amends definition of Renewable Energy Producer, includes fuel cells using renewably-generated hydrogen - In January 2008, the Hawaii legislature amended the definition of “renewable energy producer” to include growers and producers of organic materials used primarily for the production of biofuels or other fuels, so that they will be eligible for direct leases of public land. The definition now includes hydrogen fuels derived primarily from renewable energy, or fuel cells where the fuel is derived primarily from renewable sources that sell all of the net power produced from the demised premises to an electric utility company regulated under chapter 269 or that sells all of the thermal energy it produces to customers of district cooling systems.

ILLINOIS

Net Metering and Interconnection Standards – Illinois enacted legislation in 2007 requiring investor-owned utilities and alternative retail electricity suppliers (but not municipal utilities or electric cooperatives) to offer net metering to customers by April 1, 2008. The Illinois Commerce Commission (ICC) was also required, by the same date, to establish standards for net metering and interconnection for renewable energy systems. The ICC developed standards for renewable energy systems, and all distributed generation up to 10 MW, in 2008. Fuel cells powered by renewable fuels are eligible.

MARYLAND

State GHG/carbon reduction report includes fuel cell strategies – Maryland’s Comprehensive Greenhouse Gas (GHG) and Carbon Footprint Reduction Strategy report (August 2008) identifies a suite of cost-effective GHG reduction program. The “Promotion of Renewable Energy Resources” policy option focuses on encouraging renewable energy development by removing regulatory and financial barriers to large-scale centralized facilities as well as on-site generation. Energy sources identified as Tier One in Maryland’s Renewable Portfolio Standard (RPS) law would be targeted in the 2009-2020 timeframe, including fuel cells. The “Technology-focused Initiatives for Electricity Supply Technology” would provide State government and other parties with resources and incentives for analysis, targeted research and development (R&D), market development, and adoption of GHG-reducing technologies not covered by other policies. It would especially target landfill gas combustion for power generation, use of biomass co-firing in existing fossil fuel fired units energy storage and use of fuel cells.

MASSACHUSETTS

Massachusetts Renewable Energy Trust Fund is established, eligible projects include renewably-powered fuel cells – House Bill 4362, An Act Relative to Green Communities, was passed in 2008 and includes a number of measures to provide clean and renewable energy in the Commonwealth of Massachusetts. The Act establishes the Massachusetts Renewable Energy Trust Fund to help to finance renewable energy initiatives that promote the increased availability, use, and affordability of renewable energy including fuel cells using renewable fuels.

Green Building Tax Credit is provided, will apply to a portion of fuel cell installation costs – H.B. 4362 also establishes a Green Building Tax Credit that provides a business and personal income tax credit to promote the construction, rehabilitation and maintenance of green buildings, including the use of renewable fuel cell technologies. A tenant or owner may take a credit equal to the applicable percentage of the allowable costs incurred in installing a fuel cell to serve a green building, green base building or green tenant space for 6 percent of the sum of the capitalized costs a taxpayer pays or incurs

for a fuel cell, including the cost of the foundation or platform and the labor cost associated with installation. The maximum credit is \$1,000/kW of installed dc rated capacity.

Green Jobs Act promotes fuel cell technology training – The Green Jobs Act supports the growth of a clean energy technology industry. The Act establishes the Massachusetts Clean Energy Technology Center to research and establish, if the center so chooses, the Massachusetts Hydrogen and Fuel Cell Institute, to be housed at the Worcester Polytechnic Institute, and to serve as a joint venture among institutes of higher education in the commonwealth providing a focal point for research, education and commercialization activities in the hydrogen fuel cell sector. The Center will also establish a green jobs initiative that will award grants to the commonwealth's public institutions of higher education and vocational-technical schools to facilitate workforce development efforts and train and retain students in clean energy industries. The grants will include matching grants to public institutions of higher education and vocational technical schools for the development of small-scale renewable energy generating sources, including fuel cells.

MISSOURI

Renewable Energy Requirement is enacted, includes fuel cells using renewably-generated hydrogen – The Missouri Clean Energy Initiative requires that all electric utilities in the state generate or purchase electricity generated from renewable energy resources, constituting the following portions of each electric utility's sales:

- (a) No less than two percent for calendar years 2011 through 2013;
- (b) No less than five percent for calendar years 2014 through 2017;
- (c) No less than ten percent for calendar years 2018 through 2020; and
- (d) No less than fifteen percent in each calendar year beginning in 2021.

Fuel cells using hydrogen from renewable sources are included among technologies defined as "renewable" under the measure.

Fueling Infrastructure Tax Credit – An income tax credit for the costs of constructing a qualified alternative fuel vehicle fueling station is available. The tax credit was enacted in 2008 with implementation in 2009. The credit may not exceed the lesser of \$20,000 or 20% of the costs directly associated with the purchase and installation of any alternative fuel storage and dispensing equipment. The total amount of tax credits claimed may not exceed \$3,000,000 for taxable year 2009, \$2,000,000 for taxable year 2010, and \$1,000,000 for taxable year 2011. Eligible fuels include those containing at least 70% of the following alternative fuels: ethanol, compressed natural gas, liquefied natural gas, liquefied petroleum gas, any mixture of biodiesel and diesel fuel, and hydrogen.

MONTANA

Net Metering – In 2008, The Montana Electric Cooperatives' Association (MECA) adopted model interconnection guidelines in 2001 and a revised net-metering policy in September 2008. Net metering is available in whole or part by most of the 26 electric cooperatives in Montana. Under the model policy, customers who generate electricity using a renewable source including, but not limited to, wind, solar, geothermal, hydro-electric or fuel cells are eligible for net metering. Net metering is defined as the interconnection of member-owned generation from a renewable resource to the cooperative's facilities, in which the generation output of energy not used at the service is netted against the energy delivered by the cooperative within the following guidelines:

- The cooperative will not purchase energy produced by the member.

- The maximum individual system capacity is 10 kilowatts.
- Member generation is intended primarily to offset part or all of the member's own electrical requirements.
- A standard meter may be allowed to turn the direction the power flows. Two meters may be required if needed for automated meter-reading systems.
- Customer net excess generation (NEG) may be carried over to the next monthly billing period.
- At the end of the 12 month billing period, any remaining unused kilowatt-hours (kWh) must be granted to the cooperative.
- Owners of net-metered systems will be assessed monthly for cooperative costs and expenses, including distribution and transmission costs and expenses.

NEW JERSEY

The state's Global Warming Response Act Recommendation draft report is released, includes fuel cells

– An Action Item listed in this draft Climate Change draft response report is to "Implement policies to promote Zero Emission Vehicle (ZEV)Use". Specifically, "New Jersey commits to the following series of State policies to enable the widest possible use of zero emission vehicles (ZEVs) (these generally include electric and hydrogen fuel cell vehicles) in New Jersey:

- Work with State legislature to expand the ZEV sales tax exemption;
- Assess the feasibility and GHG impacts of changes to the uniform building code to require provisions for vehicle charging stations (both residential and at other parking areas); and
- Develop a plan for statutory and regulatory actions to incentivize infrastructure for alternative fuels.

In addition, New Jersey "will pursue funding opportunities and partnerships for demonstration projects focusing on the use of compressed natural gas, liquefied petroleum gas and hydrogen as motor vehicle fuels for fleet use, with a focus on urban delivery vehicles."

Regarding future energy generation, the report notes that for "scenarios where additional energy generation beyond renewable and bio-power sources would be needed, the possible sources would include converting the CHP facilities to use hydrogen that is generated from non-carbon emitting sources, nuclear power or fossil fuel (coal or natural gas) with carbon capture and sequestration."

New Jersey Energy Master Plan road map, urges examination of hydrogen-powered transport – Issued in October 2008, the Plan proposes a road map for the state that includes increasing the current Renewable Portfolio Standard (RPS) goals, with a new goal of achieving 30% of the State's electricity needs from renewable sources by 2020. The current requirement is that 20% of 2020 New Jersey electricity consumption be supplied from Class I renewable sources, including fuel cells. The Plan also encourages the development of other distributive generation such as cogeneration and sets aggressive targets to reduce the peak demand for electricity by 5,700 MW. In addition, the current RPS maintains the 2020 requirements to any future year, so the Plan recommends considering an increase in the Standard for the years 2021 to 2025. Issues to be considered would include grid reliability, the feasibility of electricity storage using plug-in hybrids or other storage technologies, and the prospects of hydrogen as a transportation fuel.

Property Tax Exemption for Renewable Energy Systems: In 2008 New Jersey enacted legislation exempting renewable energy systems used to meet on-site electricity, heating, cooling, or general energy needs from local property taxes. Eligible renewable energy systems include solar PV, wind, fuel cells, sustainable biomass, geothermal electric, landfill gas, hydroelectric, resource recovery, wave, and tidal systems that produce electricity.

OHIO

Job Stimulus Plan: A \$1.57 billion job stimulus package (HB 554) was signed into law to create new jobs in the near term. This bond-funded program creates an Advanced Energy Job Stimulus Fund that is administered through a public process managed by the Ohio Air Quality Development Authority (OAQDA). The Program will award funds to a portfolio of advanced energy projects that serve to attract new investment to Ohio, build upon Ohio's manufacturing strength, advance energy technology development toward commercialization and prepare Ohio's workforce for the future. Eligible projects for OAQDA assistance include advanced energy projects and advanced energy resources, including fuel cells.

OREGON

Renewable energy manufacturing tax credit offered, applicable to fuel cells – House Bill 3619 creates a tax credit of up to \$40 million for renewable energy resource equipment manufacturing facilities. Renewable resource equipment includes fuel cells.

WISCONSIN

Advanced Renewable Energy Purchase Tariff - Xcel Energy, an investor-owned utility offering services in eight states, will purchase 100% of the electricity and associated renewable energy credits (RECs) generated by its Wisconsin customers using qualifying renewable energy systems. The purchase will take the form of a 10-year, fixed rate contract between the customer and the utility. Distributed generation systems must use a renewable resource and have an initial placed in service date of no earlier than January 1, 2008. Renewable resources are defined as all resources eligible under the Wisconsin RPS (Wis. Stat. § 196.378(1)(h)), except refuse-derived fuels. This definition includes wind, solar photovoltaic, solar thermal electric, biomass, biogas, fuel cells using renewable fuels, geothermal electric, tidal, wave, and small hydroelectric systems.