STATE OF THE STATES: FUEL CELLS IN AMERICA 2011

Hydrogen Learning for Local Leaders Webinar Series

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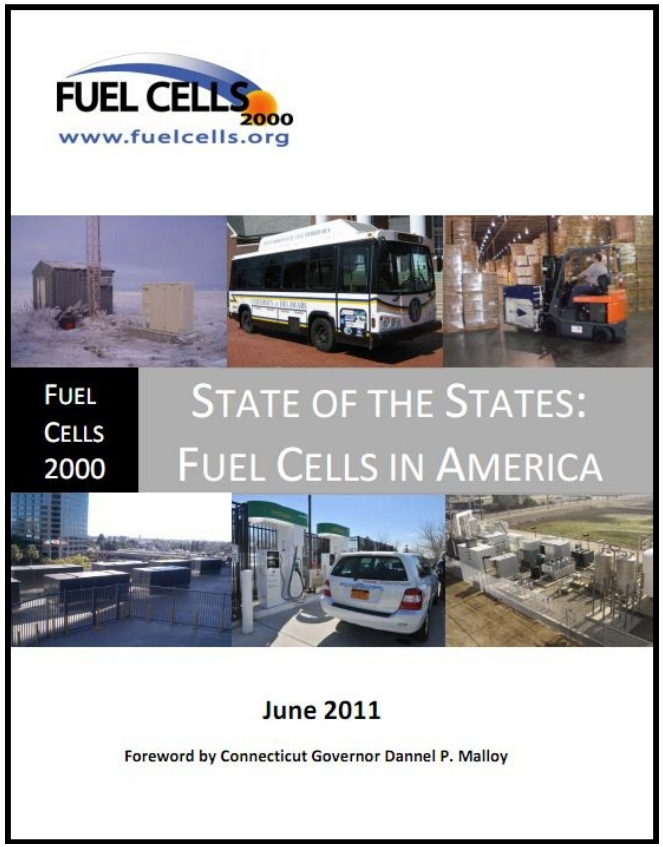
FUEL CELLS 2000/BTI

- U.S. nonprofit organization
- Leading non-aligned source for fuel cell information since 1993
- Award-winning services
- Education through outreach/publications/website
- www.fuelcells.org
- www.fuelcellinsider.org (blog)

STATE OF THE STATES 2011 REPORT

- Released June 2011 - follows up on state activity since last report (published April 2010)
- Provides detailed entries on recent policies/legislation, current and planned installations, deployments and projects, and recent funding/news made by industry and universities in state.
- Very powerful foreword by CT Governor Dannel Malloy
- Introduction and Appendices provide more information on state of industry in U.S.



http://www.fuelcells.org/statereport.html

TOP 5 STATES AND UP AND COMERS

- In last report, we chose CA, CT, NY, OH and SC as Top 5 Fuel Cell States
- This report finds these 5 still leaders in U.S.
- We also chose DE, FL, HI, MD and TX as Up and Coming states

- Each state chosen for a different reason – supportive policies, multiple installations and/or deployments, project funding, university research, business attraction

SINCE LAST REPORT…

- More than 50 MW of stationary fuel cells were either installed or purchased, most in CA but also NY, CT
- 1,500 fuel cell forklifts deployed or ordered, both repeat and new customers
- 30 fuel cell or hydrogen-powered buses either on the road or in numerous states, including AL, CA, CT, DE, IL, MA, MI, OH, SC, TN and TX.
- New hydrogen stations in CA, DE, NY, SC. Hawaii announced plans for 25 stations by 2015.
- Big job growth with companies such as Bloom, ClearEdge, Bing Energy
- Supply chain growing!

NEW POLICIES

- Ohio implemented a Qualified Energy Project Tax Exemption for which fuel cell installations are eligible.
- California created the CAEATFA (California Alternative Energy and Advanced Transportation Financing Authority) program to finance alternatively-powered facilities and facilities used to develop and commercialize advanced transportation technologies. Fuel cell technology is eligible for funding.
- Louisiana initiated a renewable energy pilot program for which fuel cells are eligible.

MORE POLICIES

- Oklahoma instituted alternative fuel vehicle and infrastructure tax credits, and a renewable energy goal, that includes fuel cells and hydrogen.

- Maryland made fuel cell technology eligible for the state's net metering policies.

- Hawaii's state government, in partnership with 10 companies, agencies and universities, as well as GM, DOE and DOD, initiated the Hawaii Hydrogen Initiative (H2I) to make hydrogen-powered vehicles and a fueling infrastructure a reality in Hawaii by 2015.

FUNDING INITIATIVES

- CA's **SGIP –** major factor in many of the CA installations and purchases – many use ADG from wastewater treatment plants and food/beverage processing. Bloom's unit using redirected biogas also counts.
- CCEF has two programs - **On-Site Distributed Generation** (OSDG) Program ($12.86 million) and **Alpha Program.** CCEF's **Project 150 program**, an initiative aimed at increasing renewable energy supply in CT by at least 150 MWs also funding numerous fuel cell installations in state.
- NYSERDA - $21.6 million was made available to **Renewable Portfolio Standard Customer-Sited Tier Fuel Cell Program**

LOTS OF REPEAT CUSTOMERS

Stationary fuel cells

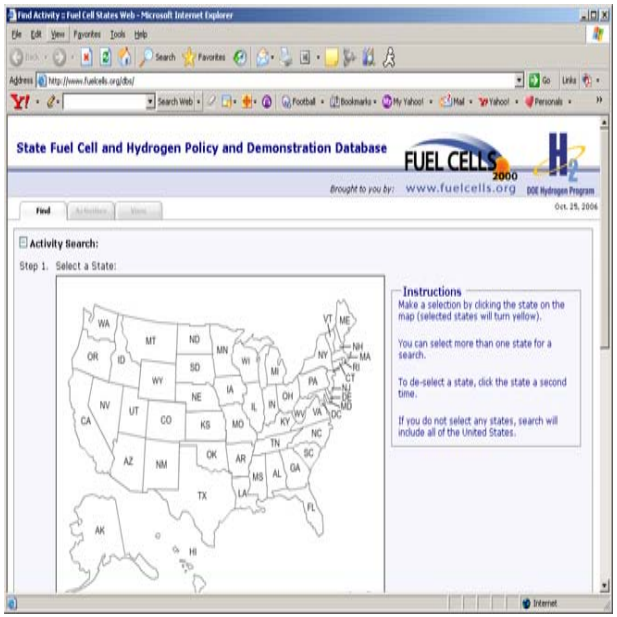
- Coca-Cola
- Cox Communications
- Whole Foods
- Price Chopper

Forklifts

- Coca-Cola (CA, NC)
- Walmart
- Sysco (PA, TX, VA)
- Martin-Brower

OTHER FUEL CELLS 2000 RESOURCES

- Policy WrapUps (2010, 2009, 2008)
- Jobs Estimate (current U.S. ~3,600, supply chain ~7,000; total worldwide ~13,000, supply chain ~36,000 and growing!)
- Searchable State Fuel Cell and Hydrogen Database



BUSINESS CASE FOR FUEL CELLS

Profiles 38 nationally-recognized companies, including Coca-Cola, Staples, Walmart, Whole Foods, Hilton Hotels, Sysco and many more!

Companies in report have ordered, installed or deployed:

- more than **1,000** fuel cell forklifts;
- **58** stationary fuel cell systems totaling almost 15 MW of power;
- more than **600** fuel cell units at telecom sites.
- Another coming in Fall

http://www.fuelcells.org/BusinessCaseforFuelCells.pdf

THANK YOU

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