

# The Resources of the South: Hydrogen and Fuel Cells

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# Fuel Cells 2000 / BTI

- ◆ U.S. nonprofit organization
- ◆ Established in 1993
- ◆ Promotes fuel cells from public interest perspective.
- ◆ Supported by foundations, grants and contracts
- ◆ [www.fuelcells.org](http://www.fuelcells.org)



# State Fuel Cell and Hydrogen Policy and Demonstration Database

Find Activity :: Fuel Cell States Web - Microsoft Internet Explorer

Address: <http://www.fuelcells.org/dbs/>

## State Fuel Cell and Hydrogen Policy and Demonstration Database


Brought to you by: [www.fuelcells.org](http://www.fuelcells.org) DOE Hydrogen Program

Oct. 25, 2006

Find Activities View

**Activity Search:**


Step 1. Select a State:



**Instructions**  
Make a selection by clicking the state on the map (selected states will turn yellow).  
You can select more than one state for a search.  
To de-select a state, click the state a second time.  
If you do not select any states, search will include all of the United States.

Find Activity :: Fuel Cell States Web - Microsoft Internet Explorer

Address: <http://www.fuelcells.org/dbs/>



Select All

Step 2. I want to view information on:

Demonstrations     Policies (to search for both, leave blank)

For

H2/FC Vehicles  
 Stationary Fuel Cells/Power Generation  
 H2 Fueling Stations

Search Clear

**Advanced Search Options**

Title:

Project:

Total Power:

Fuel Source:

Fuel Cell Type:

Fuel Cell Manufacturer:

Text Search:

Search Clear

# State Fuel Cell and Hydrogen Policy and Demonstration Database

Includes:

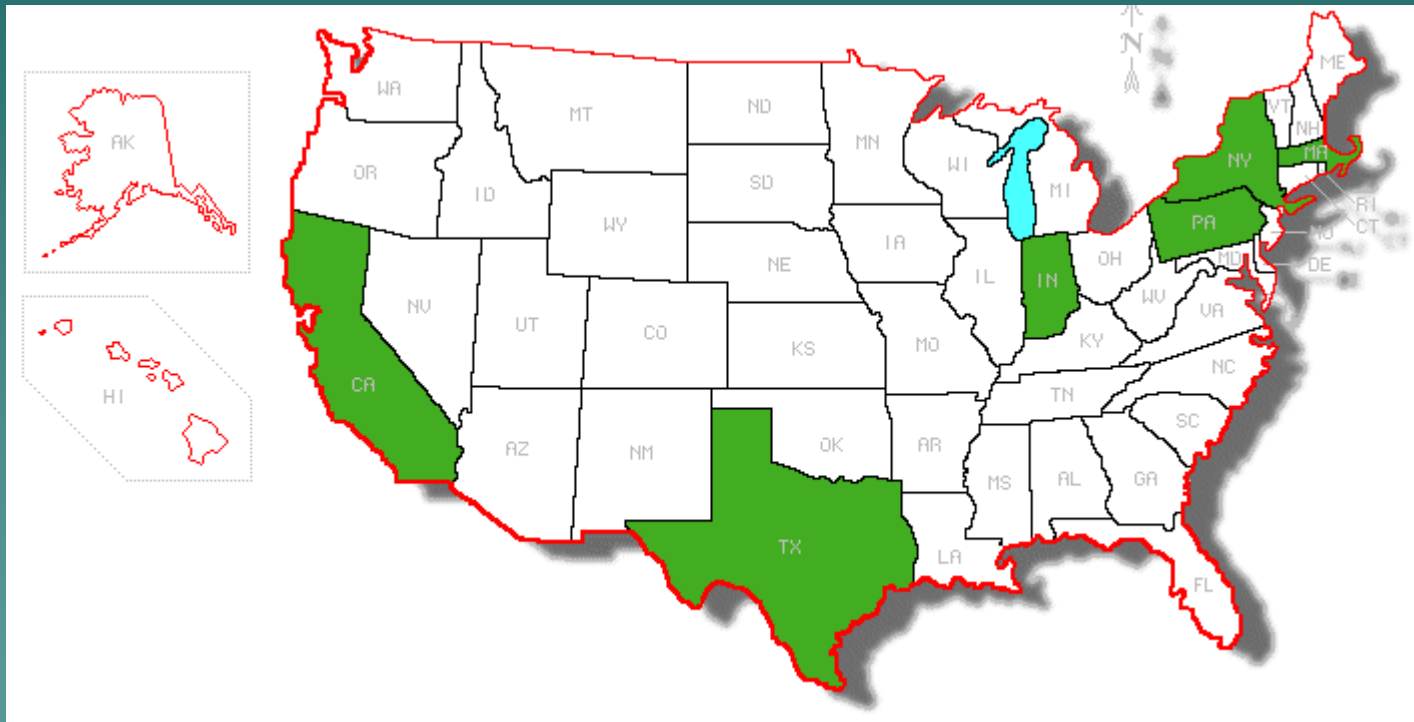
- All state policy, incentives, tax credits, grants, RPS, interconnection standards
- Stationary fuel cell installations
- Hydrogen fueling stations
- Vehicle demonstrations
- Based on recent comprehensive 240-page report but is searchable

Available at [www.fuelcells.org](http://www.fuelcells.org)

# State Activities that Support Fuel Cell and Hydrogen Infrastructure Development

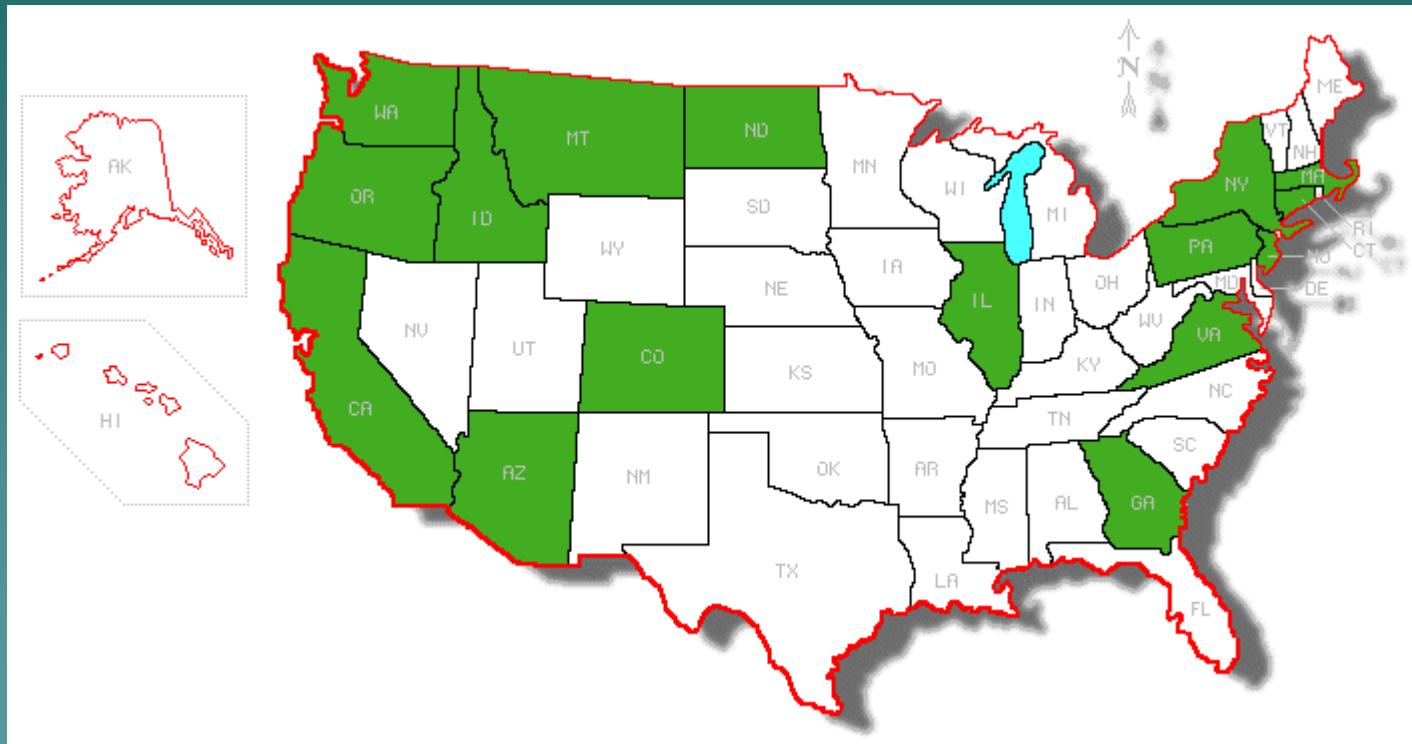
- ◆ 47 states plus D.C. have something going on in fuel cell/hydrogen arena
- ◆ Critical support for industry
- ◆ Financing demonstrations and innovation
- ◆ Addressing planning and installation requirements
- ◆ Educating decision makers & public
- ◆ Leading where federal government can't, hasn't, won't

# Grants and Loans for Vehicles and Infrastructure



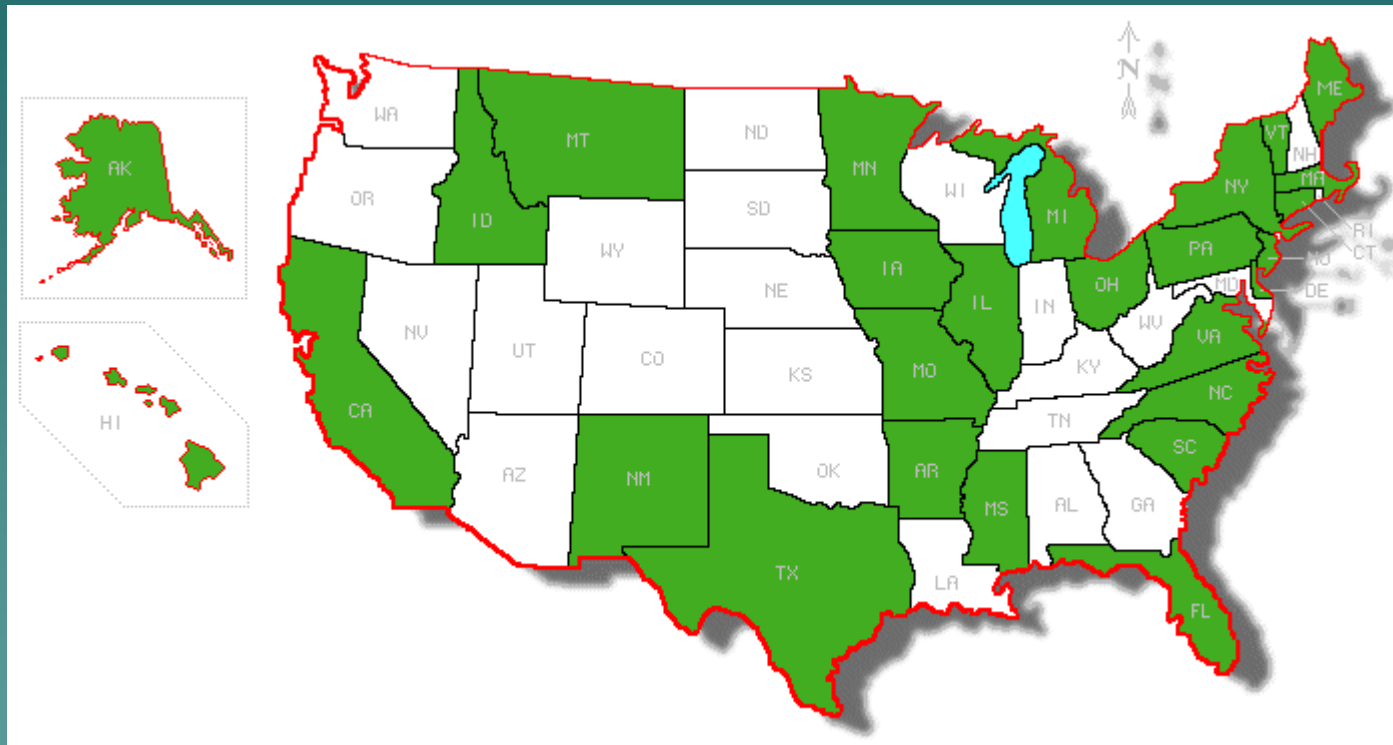
6 states offer grants/loans for H2 and fuel cell vehicles, 3 (NY, PA, MA) for H2 infrastructure.

# Tax Incentives and Rebates for Vehicles and Infrastructure



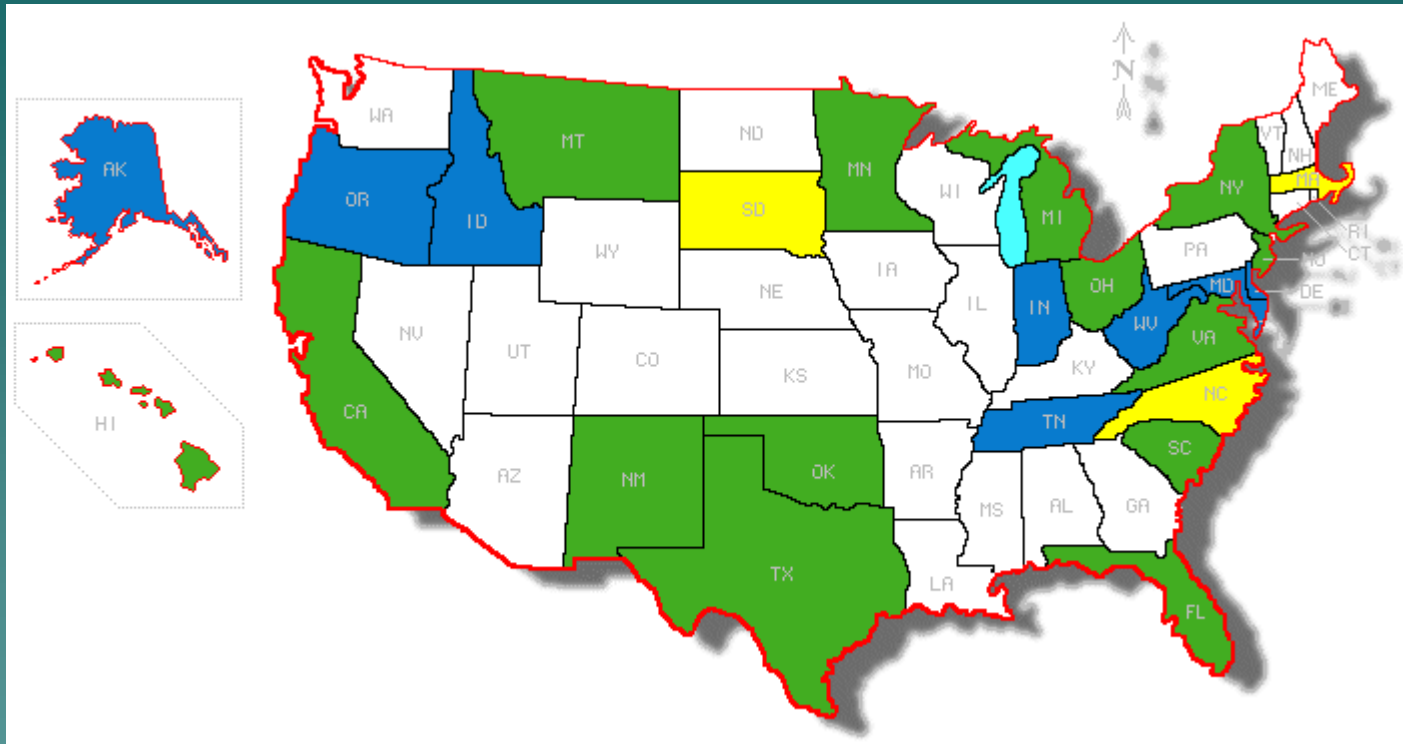
15 states offer tax incentives for H2 and fuel cell vehicles,  
5 (CO, CT, NJ, ND, VA) for H2 infrastructure.

# RD&D and Emerging Business Support for H2/Fuel Cell



27 states and D.C. support research parks/institutes, provide incubators/business assistance (marketing, legal, etc.), or offer grants/loans/tax incentives.

# H2/FC Cell Strategies

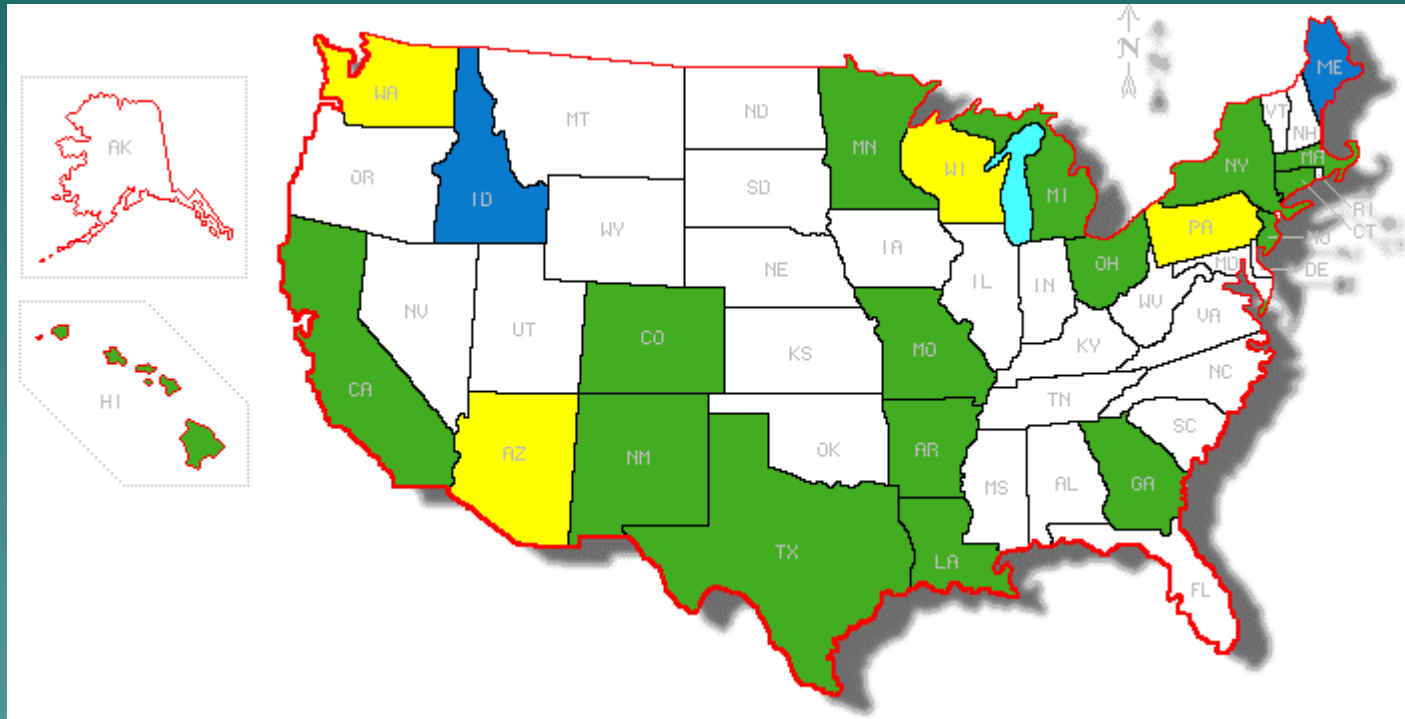


14 states (green) have H2/FC roadmaps, plans, reports or legislation.

3 states (yellow) are developing H2/FC plans.

8 other states and DC (blue) have alt. energy plans that include H2.

# FC Interconnection Standards



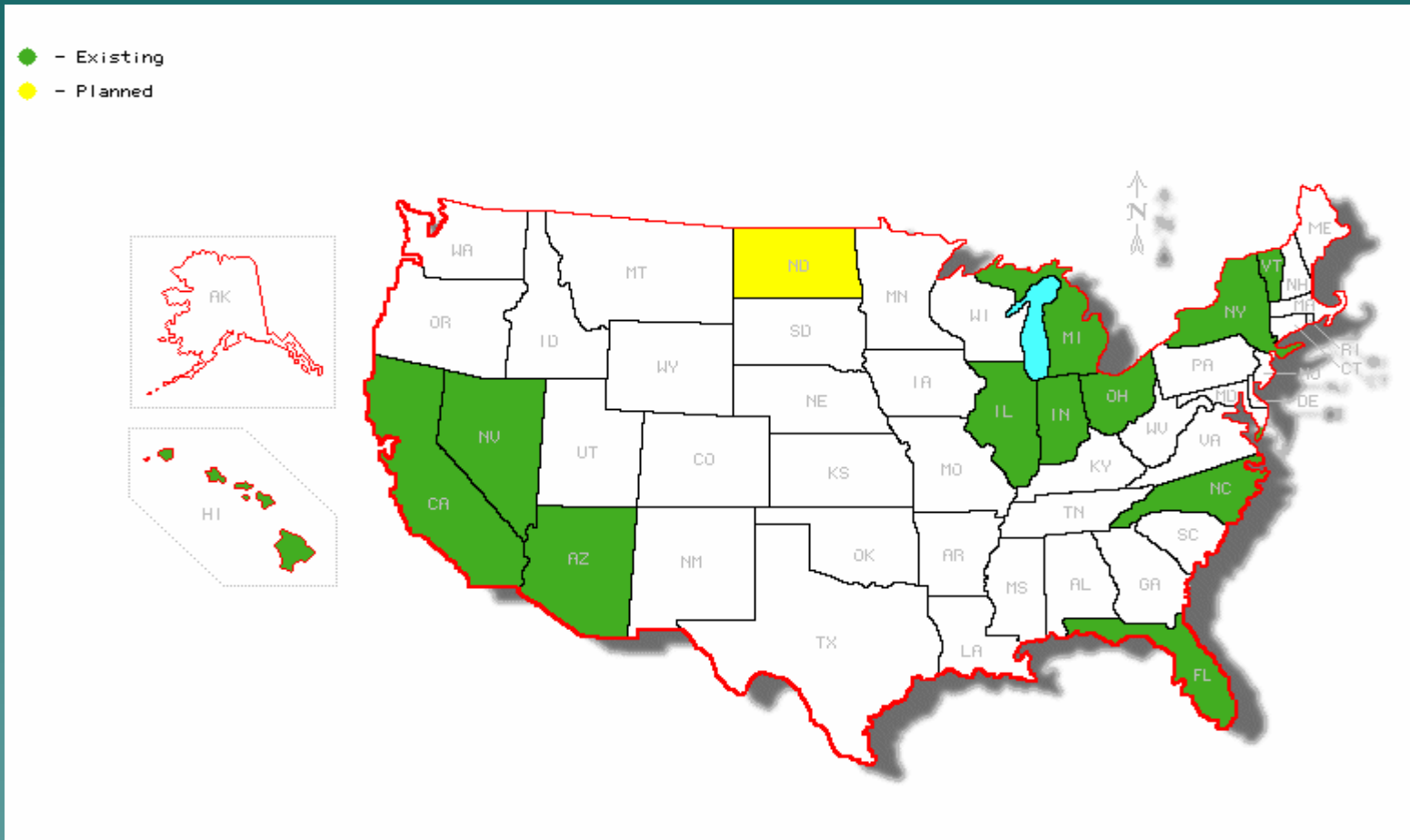
16 states and DC have standards to connect FC to the power grid.

FC interconnection standards pending in 4 states.

Utilities in 2 other states permit FC interconnection.



# H2 Refueling Stations



11 states and D.C. have H2 refueling stations.  
CA, NY, FL, MI, ND and OH have more planned.

# Regional Partnerships

## **ARRC/H2 Alliance**

- ◆ Objective is to design and build the first viable prototype Hydrogen Fueling Station/Information Center in key locations worldwide.

## **FuelCell South**

- ◆ Formed as an outgrowth of collaborative work between industry and researchers. Goal is to foster awareness and create a marketplace for fuel cells in the southeastern U.S.

## **Hydrogen Energy Center**

- ◆ All-volunteer nonprofit working for renewable H2 economy through public education, advocacy, technology demonstration and job creation. Members primarily from New England area.

# Regional Partnerships

## H2TEC

- ◆ Effort to establish/expand H2 education (grade school through graduate level) and develop presentations/demonstrations for professional/non-technical audiences. Members include state agencies and universities from MD and VA.

## H2USA Centers

- ◆ 4 H2USA Centers will be located in 3 states to educate students/govt. officials/public about H2 and fuel cells. Project partners are California Energy Commission, NYSERDA and University of Central Fla.

## HyTEC

- ◆ Formed by the U of SC, U of Fla, U of Ga and NC A&T State University to produce curriculum materials/offer technology demonstrations about H2 and fuel cells.

# Regional Partnerships

## Mid-Atlantic Hydrogen Coalition

- ◆ Formed to promote deployment of H2 energy/fuel cell technologies in the Mid-Atlantic region. Facilitating network of H2 refueling stations along highway I-95 between Richmond and NYC.

## Northeast Hydrogen Alliance

- ◆ Project of the Center for Economic and Environmental Partnership. Mission to advance collaborative development and deployment of H2 energy infrastructure in the northeast U.S.

## Public Fuel Cell Alliance

- ◆ Project of Clean Energy States Alliance. Mission to accelerate widespread adoption/ commercialization of fuel cells/H2 infrastructure through cooperation among North American/ European public funding agencies.

# Regional Partnerships

## Southern Fuel Cell Coalition

- ◆ Nonprofit, member-based consortium formed to supplement individual southern states' initiatives to develop H<sub>2</sub>/fuel cell technologies.

## Upper Midwest Hydrogen Initiative

- ◆ Regional, public-private H<sub>2</sub> partnership serving IA, Manitoba, MN, ND, SD and WI. Emphasis on renewable and carbon-neutral hydrogen production and delivery, including development of Upper Midwest H<sub>2</sub> refueling network.

**More sprouting up all the time!**



# Thank you

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