

U.S. Fuel Cell Council

*The Voice of the Fuel Cell
Industry*

Outline

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US Fuel Cell Council

- Industry led trade association
- Founded in 1998
- Supports commercialization for all applications and technologies
- International membership
- 80+ members
- Member led organization

USFCC Activities

- Shape safety and product standards
- Shape federal and state policies
- Set technical benchmarks
- Interact with opinion leaders
- Educate customers and the public
- Collaborate with peers

II. Membership & Structure

USFCC Membership

- Open to all who share our mission
 - Developers, suppliers, customers
 - Other associations
 - Universities, national laboratories
 - Executive, Associate, & Government/
Non-Profit membership levels

USFCC Structure

- Executive members can hold office and vote
- BoD made up of executive membership
- Executive Committee oversees budget & policy
- Strategy Committee oversees working groups

USFCC Working Groups

- Government Affairs
- Codes & Standards
- Education & Marketing
- Materials and Components
- Transportation
- Power Generation
- Portable Power
- SOFC Focus Group

III. Council Priorities

1. Government Affairs

- Restore Federal budget cuts and maintain robust RD&D program
- Assure fuel cells' place in national energy strategy
- Market assistance
 - Federal, state and private purchases
 - Tax credits/grants
 - Support for infrastructure

Policy Successes

- Restored proposed cuts in federal RD&D support
 - Built and led effective grass roots effort
 - Built and energized broad coalition including environmental and public health organizations
- Educating Obama Administration
- Extension and modifications of Investment Tax Credit, plus extensions and improvements.
- Improved treatment in Cap and Trade Legislation

2. Regulatory Affairs

- Open markets internationally by assuring unfettered transport of fuel cells and products containing fuel cells
- Develop and update safety standards, performance standards, and product interchangeability recommendations
- Provide information to be used by regulatory authorities
- Facilitate collaboration with state, national and international regulators, fuel providers, and suppliers

Regulatory Successes

- Successful effort to integrate fuel cells into international transport regulations – air, sea and ground
- Successful effort to allow passengers to carry-on and use fuel cells and fuel cell cartridges on passenger aircraft
- Lead US coordination effort
- Leadership role in national and international committees, working groups, and task forces for the industry

3. Education & Marketing

- Let customers and the public know about available products
- Communicate benefits of fuel cells to opinion leaders, government and the media
- Encourage consistency in industry communications
- Communicate R,D&D and commercial opportunities to the industry

Communications Successes

- Assisting market entry
 - \$42 million federal purchase support program
 - Additional funds anticipated in FY 2010
 - Identifying RD&D and commercial opportunities
 - Maintain product list
- Speeches, articles, printed materials, media quotes to international audiences

Standardization Successes

- Growing series of technical papers on PEM recommended industry practices and identification of industry needs
- USFCC measurement approach and other definitions adopted by US DOE and others internationally
- Leading international testing effort

IV. USFCC Outreach

www.usfcc.com

- Public Web site is a valuable tool for members
 - Member contact info
 - “Fuel Cells Are Here Today”
 - Fact Sheets
 - “Meet the Council” page highlighting conferences
 - Back issues of Catalyst & Connection
- Member’s Only website:
 - Minutes of recent working group meetings
 - Presentations available for member use

Publications

- *Weekly Currents* – members only, industry news and Council communication
- *Legislative Updates* – distributed with Currents, reports on events in DC
- *Fuel Cell Connection* – monthly, 6,000+ subscribers, focused on funding opportunities, industry news, R&D programs (federal, state and local levels)

Publications (continued)

- *Member Guide* – updated annually
- *Annual Report* – updated annually
- *Worldwide Industry Survey* – examines sales, R&D expenditures, numbers of employees; assesses development of industry
- *Commercially Available Product List* – over 50 products currently listed
- *Fuel Cells for Power Generation*
- *Fuel Cells for Mobility*
- *Path Forward & Agenda for Action*
- *Regulatory Affairs Priority Matrix*

Contact Us Today

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V. USFCC Working Groups: The Details

Government Affairs

Mission: *To educate USFCC members and key decision makers regarding key US federal and state policy initiatives, and to promote the establishment and implementation of policies, regulations, and legislation that advance fuel cell technology, systems and supporting fuel infrastructure for the public good. The goal is to be the voice of the industry regarding these matters, with a focus on US federal and state activities.*

Remaining areas of concern this year:

- Hydrogen Refueling Credit
- Revision of the Residential Investment Tax Credit
- Fork lift eligibility in the IRS code
- Combined Heat and Power Incentive

Codes & Standards

- **Mission:** *The US Fuel Cell Council Codes & Standards Working Group monitors Codes & Standards activities at the local, regional, national, and international levels and provides information to the members of the Council.*
- **Areas of Concentration:**
 - Portable / Micro Fuel Cell Safety Standards & Transportation Regulations
 - SAE Fuel Cell Standards Committee
 - Global Technical Regulations for Fuel Cell Vehicles
 - CSA Safety Standards
 - IEC TC 105 on Fuel Cells
 - ISO TC 197 on Hydrogen
 - NFPA Standards
 - NEC/NFPA 70 - National Electric Code
 - ASME , UL Safety & CGA Standards
 - ICC Model Building, Mechanical, and Fire Codes
 - Hydrogen Quality
 - Single Cell Testing
 - Cargo Transportation of Fuel Cell Vehicles & Engines
 - IEEE Interconnection Standards

Education & Marketing

- **Mission:** *The Education & Marketing Working group supports the mission of the USFCC by increasing understanding of fuel cells and candidate fuels. We do this by: developing and disseminating materials on all fuel cell applications and technologies; identifying and educating target audiences on technologies and products; supporting USFCC members and other working groups; collaborating with USFCC members and other organizations; marketing fuel cell technologies; and marketing the USFCC as "the Voice of the Fuel Cell Industry."*
- **Activities:**
 - Tri-fold recruiting brochure
 - US Fuel Cell Council Web Site – www.usfcc.com
 - Fuel Cell Workshops and Strategic Briefings
 - US Fuel Cell Council Exhibit Booth Display at conferences
 - Presentations for Member use
 - Fact sheets & brochures on fuel cell technologies & applications
 - US Fuel Cell Council Member Guide

Portable Power

- **Mission:** *The US Fuel Cell Council Portable Power Working Group will promote the commercialization of portable fuel cell power systems by identifying key markets, making potential users and their agents aware of fuel cell power source devices and their capabilities, removing barriers to deployment and transportation, and encouraging demonstration programs to promote acceptance and successful commercialization. The Portable Power Working Group will work in concert with other Council Working Groups to further their missions, and assist with USFCC membership recruitment.*

- **Activities:**

- National & international transportation regulations
- Portable & micro fuel cell safety standards
- UN & ICAO regulatory interface
- Portable Fuel Cell Brochure
- Member Recruitment

Power Generation

- **Mission:** *The US Fuel Cell Council Power Generation Working Group will promote the use of fuel cells in large power generation applications, small distributed systems, and power generation systems on board mobile platforms by providing market characterization studies, feasibility studies, and other supporting resources to the members. The Power Generation Working Group will make existing resources available wherever possible and may also choose to commission new independent Council-sponsored studies.*
- **Activities:**
 - Distributed Generation systems
 - Micro-Grids
 - Mobile Systems
 - Rural & Back-up power systems
 - LEED certification
 - Independent Power Systems

Materials & Components

- **Mission:** *The mission of the Fuel Cell Stack Materials and Components Working Group of the US Fuel Cell Council is to address the issues in the production and supply of materials and components, and their specification and standardization that will lead to a reliable supply of components and sub-assemblies that constitute fuel cell stacks. The Materials and Components Working Group will work in concert with the other Working Groups to further the Council's mission and assist with membership recruitment.*
- **Activities:**
 - Corrosion
 - Testing & Industry Standards
 - Reliability
 - Material Specifications
 - Bipolar Plates
 - Membranes
 - Gas Diffusion Layers
 - Membrane Electrode Assemblies
 - Gaskets

Transportation

Mission: *The Transportation Working Group will promote the use of fuel cell technologies in transportation by:*

- *Highlighting the benefits of the new technologies,*
- *Stimulating the acceptance of fuel cell vehicles and associated infrastructure, and*
- *Encouraging the removal of barriers to commercialization.*

Activities:

- Fuel Cell Standards and Recommended Practices for “Automotive” (Land, Sea and Air) Applications
- Fuel cell specialty vehicles
- SAE Fuel Cell Vehicle Standards
- Cargo transportation of fuel cell vehicles
- Transportation Fuel Cell Brochure
- Hydrogen Infrastructure Issues

SOFC Focus Group

- **Mission:** *The mission of the Solid Oxide Focus Group is to promote solid oxide fuel cell (SOFC) research, development, deployment and commercialization.*

We do this by collaborating with SOFC developers and federal agencies and congress; identifying key SOFC markets; sharing SOFC best practices; educating potential users and their agents on SOFC capabilities; encouraging research and demonstration programs to promote acceptance and successful commercialization; and, hence, removing barriers to deployment. We are working in concert with other Council Working Groups to further their missions and assist with USFCC membership recruitment.

- **Activities:**
 - FutureGen
 - SOFC message matrix
 - Outreach/partnering with coal industry
 - SmartGrid
 - LEED credit