Hydrogen Energy In West Virginia

West Virginia Hydrogen Working Group

Presented By David Haberman
Why Hydrogen

• Makes Carbon Management At Power Generation Impacting
• Redeems Major National Investment
• Avoids Dependency On Foreign Oil
• Gives Coal Legs
• Provides Cost Predictability To Consumer
• Safer Than Gasoline
• Creates New Industries
West Virginia Hydrogen Working Group

- Coordinated By NETL
- Broadly Inclusive
- Focused On Implementation Barrier Reduction
- Two Sites In Development: Charleston & Morgantown
- H2 Production & Dispensing Facilities
Hydrogen Value Chain

Coal Based Power

Water

Clean Fuel

Portable Batteries

Stationary Generators

H2 Fueled Transportation

Hydrogen
Atomic Number: 1
Atomic Mass: 1.00797
Proven Baseline For WV Stations
Hydrogen Production & Storage
West Virginia Hydrogen Business Leadership

- Attract Innovators Seeking Tech Val
- Attract Fuel Cell Companies
- Attract Fuel Cell Project Developers
- Identify Local Partners For Early Adopters
- Commercialization Initiatives Post NETL
Community Support

• Public Learns About Hydrogen
• Welcomes H2 Facility
• Public Experience With H2 Power
• Participates In Trials Of Commercial Products
• Supports H2 Stimulus Policies
• Patronize Lead Adopters
Public Acceptance Of Hydrogen

• Education
• Friendly Site
• Schools Active
• H2 Project Participants Expressive
• Business Community Expressive
• Press Coverage
Consensus Resolution

Declare Hydrogen Is A Safe Fuel

This Resolution Is Supported By A Growing Number Of Stakeholders!!
Hydrogen Safety

- Not Explosive In Open Air
- Not Decomposing
- Not Self-Igniting
- Not Oxidizing
- Not Toxic
- Not Corrosive
- Not Polluting
- Not Cancer Causing
Hydrogen Safety

- Fuel leak simulation
  - Hydrogen on left
  - Gasoline on right
  - Equivalent energy release

- Single-mode failure assessment

Which car would you rather be in?
5th Annual Hydrogen Implementation Conference

- Strongly Articulated Coal – H2 Connection
- Presented Hydrogen Business Progress
- Technology Innovations Briefed
- Hydrogen Safety Resolution
- Connected Hydrogen To Carbon Mgmt
- International Support For Hydrogen
5th Annual Hydrogen Implementation Conference

- August 18-20, 2009 in Charleston, W.V.
- Need Sponsors
- Need Committee Members
- Need Endorsements
- Need Utility

RDTE Platform At Yeager Operational !!!!
Hydrogen Energy Incentive Concepts

- Liability Limitations
- Strict Timetables For Regulatory Approvals
- No Special Licenses Or Bonds
- Exemptions From Fuel Tax
- Exemptions From Property Tax
- H2 Production & Use Designated RPS Compliant
- EPA Preference
- State As User
- Encourage National Guard Use