



H₂OC HYDROGEN OPPORTUNITY CENTER
A Hydrogen Fuel Cell Supply Chain Resource

LOCATOR EDUCATION RESOURCES

SEARCH

FILTERS

- Manufacturers
- Installers
- Training
- NGOs

VIEW OPTIONS

- Areas
- Districts
- States

CUSTOM FILTERS

- Save New Filter
- Saved Filters

GET LISTED!
JOIN OUR DATABASE
[Sign Up](#)

NOZZLE

- > 2 suppliers
- > 3 testers
- > 2 partnership opps
- > 4 announcements

[View Specifications](#)

Image source: <http://www.frc.ut.edu>

Fuel Cell and Hydrogen Opportunity Center
Project ID # MN013
June 11, 2015

PI: Alleyn Harned
Virginia Clean Cities
1401 Technology Drive
Harrisonburg, VA 22802

One designated statewide Coalition in Virginia - since 1996

501c3 not-for-profit & James Madison University partnership

Supported by stakeholder members, DOE, DMME, and grants

Managing alt fuel deployment and education programs on behalf of governments, fleets, and other stakeholders

Strategies:

- Partner with States & Local Organizations, Public and Private fleets
- Provide Outreach, Education, & Information Resources
- Facilitate Infrastructure Development
- Provide Technical & Financial Assistance

Sponsors & Strategic Partners



Timeline

- Commence: April 1, 2015
- End: March 31, 2018

Budget

- Total Project Budget
 - \$475,743
- Federal Share
 - \$450,000
- Recipient Share
 - \$25,743
- Total DOE Funds Spent*
 - \$25,000 Pre-award Approved

*As of 3/31/15

Barriers

- Barriers Addressed
 - A. Lack of Readily Available, Objective, and Technically Accurate Information
 - C. Holes in supply chain information – high soft costs of collaboration

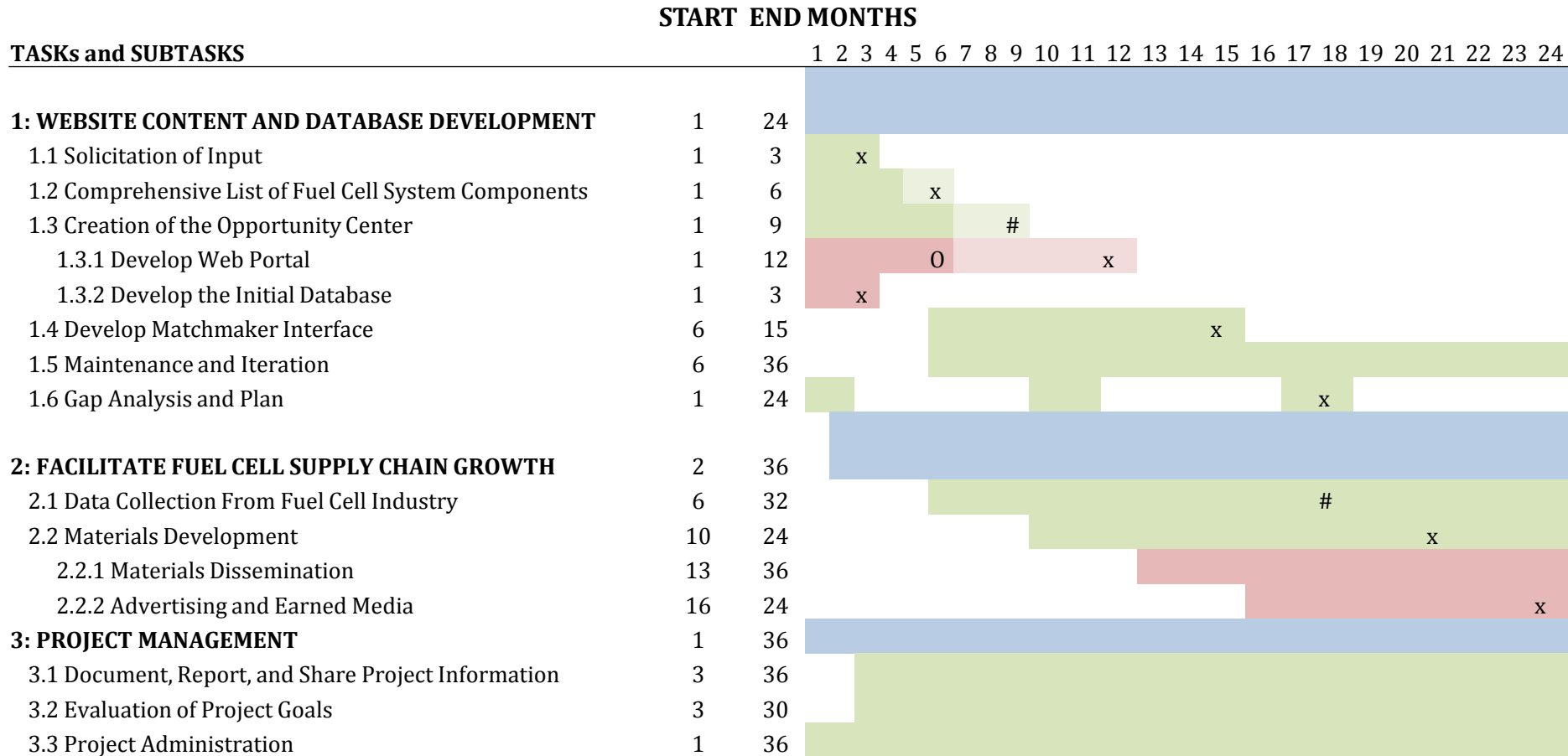
Partner/Collaborators

- VCC at James Madison University, Alleyn Harned and John Hulvey
- Birch Studio, David Robinson
- Breakthrough Technologies Institute (BTI), Robert Rose

- Project Objectives

- To expand the domestic supply chain of hydrogen components and systems.
- Scale-up of the fuel cell and hydrogen supply chain by building and populating a comprehensive communications database.
- Drive U.S. companies to the website via an aggressive outreach campaign.
- Advance hydrogen fuel cell suppliers in the transportation, utility, industrial, commercial, and residential sectors, with a focus on the transportation sector in fuel and infrastructure supply chain systems
- Reduce greenhouse gas emissions, and air pollution and contribute to a more diverse and efficient energy balance by facilitating the widespread commercialization of hydrogen and fuel cell technologies.

Approach



*Represents Closeout. Reduced efforts and budget to maintain opportunity center while closing out the project

Expected completion	
Milestone Report Quarterly Emphasis	x
Annual Go/NoGo Point	#
Hard Launch of Website	0

- Just getting started
- Technical Accomplishments for AMR 2014 Reporting Period – Got started
- Progress towards AMR 2015 goals – Ready to make progress
- Response to Previous Year Reviewer’s Comments
 - This project was not reviewed last year.

- James Madison University
 - Manages project through Virginia Clean Cities – 20 year old program with past hydrogen education project with DMME /DOE
- Birch Studio
 - an experienced branding agency that has advanced a diversity of online informational tools and networking opportunities and focused visualization and user interface design in the alternative energy sector. Birch has advanced thousands of projects and currently hosts over 100 websites.
- Breakthrough Technologies Institute
 - an independent, non-profit educational organization dedicated to promoting advanced environmental and energy technologies from the perspective of the public benefit and operator of Fuel Cells 2000, which advances the commercialization of fuel cells including sharing information in a website that attracts 15,000 visitors monthly

- Website Development and Database Management
 - The primary barrier to overcome in this task is in the identification and selection of a manageable list of components and suppliers.
 - The primary barriers to success for this task are obtaining meaningful cooperation from organizations that can share the opportunity with target audiences and a lack of interest in the fuel cell and supplier marketplace at this stage.
- Facilitating Fuel Cell Market Growth
 - A barrier to developing marketing materials is the necessary and extensive coordination with fuel cell and hydrogen vendors.
 - A challenge to marketing of website will be developing a sustained and comprehensive media strategy that engages target audiences

Remainder for FY 2015

- For Website Development
 - Data Collection and Population
 - Comprehensive List of Fuel Cell System Components
 - Creation of the Opportunity Center
 - Develop the Web Portal
 - Develop the Database
 - Develop Matchmaker Interface
 - Site Maintenance

For FY 2016

- Develop the Matchmaker Interface
- Site Maintenance and Iteration
- Gap Analysis
- For Advertising and Marketing
 - Materials Development
 - Materials Dissemination
- Document, Report, and Share Project Information

- **Objective:** Build and market a comprehensive hydrogen database for U.S. companies interested in alternative fuels.
- **Relevance:** Reducing barriers to education on hydrogen as an industry and expand market opportunities for the fuel
- **Approach:** Develop a comprehensive list and database of fuel cell system components. Begin work with partners on the creation of the Fuel Cell and Hydrogen Opportunity Center and Web Portal. Develop marketing plan for the promotion of the website.
- **Accomplishments:** TBD
- **Collaborations:** JMU, Birch Studio, and BTI

Virginia Clean Cities

Alleyn Harned

540-568-8896

aharned@vacleancities.org