Roll of Non-Profits in H₂@Airports

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U.S. Department of Energy
H₂@Airports Workshop
November 4-6, 2020
Major Players in H2@Airports Initiatives

- Technology Developers
- Governments (incentives and regulations)
- Operators
Non-Profits fill in the gaps

Governments (incentives and regulations)
Non-Profits
Operators
Technology Developers
November 6, 2020
Non-Profits fill in the gaps

A. Education and Outreach
B. Coordinating Prototyping and Demonstration
C. Deployment Support
D. Strategic Planning

Governments (incentives and regulations)

Non-Profits

Operators
Technology Developers
CTE’s Perspective

WHO WE ARE
501(c)(3) nonprofit engineering and planning firm

OUR MISSION
Improve the health of our climate and communities by bringing people together to develop and commercialize clean, efficient, and sustainable transportation technologies

PORTFOLIO
$571 million
• Zero-emission transportation research, demonstration, deployment and planning
• 90 Active Projects totaling over $316 million

NATIONAL PRESENCE
Atlanta, Berkeley, Los Angeles, St. Paul
A. Education and Outreach

• Coordinate the H₂ transportation industry to:
  – Exchange best practices
  – Grow market volume to achieve economies of scale
  – Foster regional coordination to develop efficient local H₂ economies

• Advocate for support in DC and Sacramento
Advocacy for Airport Zero Emission Equipment Funding

- In 2018 CTE successfully advocated for expansions to several FAA programs that support airport zero emission vehicles in the FAA reauthorization bill:
  - Voluntary Airport Low Emissions Grant Program (VALE)
  - Airport Zero Emissions Vehicle and Infrastructure Program
  - FAA Zero-Emission Technology Development Program

Image Sourced from content posted on FAA.gov
FAA’s Voluntary Airport Low Emissions (VALE) grant program Updates

• Funding for zero-emission vehicles no longer limited to airports in air quality (NAAQS) non-attainment areas

• Authorizes full 75-90% funding for zero-emission vehicles (vs. previous funding for incremental cost only)

• Equipment can operate off airport property (e.g. remote parking shuttles)

• Adds funding eligibility for micro-grids
FAA ZEV Program Updates

• Expanded pilot program for zero-emission airport vehicles and infrastructure (75-90% federal cost share)
  – No longer limited to airports in air quality (NAAQS) non-attainment areas
  – Equipment can operate off airport property (e.g. remote parking shuttles)
  – 3rd party management and technical support can be included in the grant.
FAA Zero-Emission Technology Development Program

• Authorizes a program to conduct airport-oriented zero-emission technology and infrastructure evaluation, research, and demonstration.

• Goals are to:
  a. Facilitate zero-emission equipment deployment
  b. Minimize risks of such deployments

• Program will cover up to 80% of the project costs.
Status of Updates

- FAA has yet to implement the 2018 FAA reauthorization language to update these programs.

- CTE’s member base is reaching out to congress to advocate for implementation.

- H2@Airports workshop attendees interested in supporting these advocacy efforts can contact me at joel@cte.tv

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October 5, 2020
The Honorable Rick Larsen
Member of Congress
2113 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Larsen,

On behalf of the Center for Transportation and the Environment (CTE) and its membership, we are writing to thank you for your continued leadership on developing federal policies that will help U.S. airports deploy innovative and sustainable technologies to advance...
B. Coordinating Prototyping and Demonstration

- ID applications for new technology
- Conceptualize relevant projects and secure funding
- Assemble project teams
- Provide technical project oversight, coordination and administration
C. Deployment Support

• Operations Planning
  – Tech specs required for target duty cycle
  – Fueling specs, logistics

• Procurement and Build Support
  – Grant funding identification and proposal support
  – Project management
  – Technical consulting

• Operations Support
  – Monitor operations to evaluate trends, benefits and costs
  – Identify opportunities to improve usability, reduce cost and minimize risk.

AC Transit-CTE 10 H₂ Bus Deployment
D. Strategic Planning

Typical Planning Assessments

1. Regulatory Reqs. (e.g. CARB Airport Shuttle reg.)
2. Operations and fuel requirement analysis
3. Fueling specs development and infrastructure assessment
4. Procurement and transition analysis
5. Total cost of ownership
6. H$_2$ equipment transition roadmap
Questions
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