# Alternative Fuels: Barriers Table

April 16, 2015
Icon Key

- **Biodiesel**
- **Ethanol**
- **Natural Gas**
- **Electricity**
- **Hydrogen**
- **Propane**
1. Lack of Public Knowledge on Alternative Fuels
   - Lack of knowledge and misconceptions about alternative fuels and advanced vehicle technology.
   - Additional education on hydrogen is needed since it is a newer vehicle technology.

Barrier pertains to:

2. Training and Education for Municipal Staff
   - Lack of knowledge about alternative fuels and advanced vehicle technology.
   - Need for education on procedures for servicing AFVs.
   - Additional education on hydrogen is needed since it is a newer vehicles technology.

Barrier pertains to:
Education

1. Lack of Public Knowledge on Alternative Fuels
   - Lack of knowledge and misconceptions about alternative fuels and advanced vehicle technology.
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Barrier pertains to:

Recommended Resources/Tool kits:
   - General “myths” and realities of each fuel
   - Relevant state policies that create the motivation for adopting AFVs
   - Guidance for local EV encouragement efforts (i.e., South Bay Energy Action Collaborative)
Education

Recommended Resources/Tool kits:

- Planning documents to better assist jurisdictions in achieving GHG reduction strategies with alternative fuels
- How to choose optimal locations for alt fuel infrastructure
- Relevant state policies that motivate AFV adoption
- Sample policies that support AFV growth

2. Training and Education for Municipal Staff

- Lack of knowledge about alternative fuels and advanced vehicle technology.
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Barrier pertains to:
6. Station Development: Site Assessment

- Station developers have come across right of way and easement issues
- Stations should be located along fleet routes.

10. Infrastructure Costs

- Lack of capital for station construction and operation costs.
- Who pays for the upfront costs of the infrastructure? The grantee, ratepayer or end user.
- Risk of investment.
- Need justification/incentives for higher costs to build stations.
- Need partners to justify investment.

Barrier pertains to:
6. Station Development: Site Assessment

- Station developers have come across right of way and easement issues
- Stations should be located along fleet routes.

Barrier pertains to:

Recommended Resources/Tool kits:
- Enabling cities to site fueling stations based on their fleets’ routes and fuel usage
- Enabling private fleets to site fueling stations based on their fleets’ routes and fuel usage
- Enabling public agencies to determine best locations to install infrastructure for the public
Alternative Fuel Infrastructure

9. Workplace Charging
• Lack of understanding regarding benefits and approaches to workplace charging.

10. Infrastructure Costs
• Lack of capital for station construction and operation costs.
• Who pays for the upfront costs of the infrastructure? The grantee, ratepayer or end user.
• Risk of investment.
• Need justification/incentives for higher costs to build stations.
• Need partners to justify investment.

Barrier pertains to:

Recommended Resources/Tool kits:
• Best practices of CEC infrastructure grant recipients so other jurisdictions may have similar success
• Develop a guide that allows jurisdictions to better navigate and understand CEC infrastructure grants
11. Selecting Appropriate AFVs

- Advise municipal staff and businesses on isolating alternative fuels that will meet fleet needs.

Barrier pertains to:

12. Procuring and Financing AFVs

- Initial higher costs of AFVs barrier to adoption.

Barrier pertains to:
11. Selecting Appropriate AFVs

- Advise municipal staff and businesses on isolating alternative fuels that will meet fleet needs.

Barrier pertains to:

Recommended Resources/Tool kits:

- Promote Clean Cities tools
- Develop guidance on determining most appropriate AFVs
11. Selecting Appropriate AFVs

- Advise municipal staff and businesses on isolating alternative fuels that will meet fleet needs.

Barrier pertains to:

12. Procuring and Financing AFVs

- Initial higher costs of AFVs barrier to adoption.

Barrier pertains to:

Recommended Resources/Tool kits:

- Identifying and promoting best resources on financing and procurement
- Reaching out to cities with disadvantaged communities to take advantage of extra funding to procure PEVs
- Costs associated with each type of AFV
- Developing models for financing vehicle acquisition