

Alternative Fuels: Barriers Table

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Icon Key



Biodiesel



Ethanol



Natural Gas



Electricity



Hydrogen



Propane

Education

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

3. Training and Education for Emergency Personnel and Transportation Fleet Staff

- Lack of safety and technical training for AFVs and AFI.

Barrier pertains to:



4. TOU Utility Rates

- Need to discourage charging when electricity supplies are in high demand and cost more. Support of time of use (TOU) pricing.
- High demand charges that impact EVSE host utility bills. Expensive metering options to access TOU rates.

Barrier pertains to:



Alternative Fuel Infrastructure

5. Station Development: Codes & Permitting

- Need for increased guidance on EVSE. Propane, natural gas, and hydrogen station installation process.
- Direction on how city staff and station developers can work together to ease station deployment process.

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:



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Alternative Fuel Infrastructure

7. Access to Public Alternative Fuel Stations

- Lack of AFV adoption due to limited infrastructure near where fleets need to refuel.
- Lack of station access for heavy-duty vehicles.

Barrier pertains to:



8. EVSE at Multi-Unit Dwellings

- Consumer lack of knowledge regarding EVSE installation in these buildings. Need to educate and work with HOAs to identify and find solutions to unique building challenges.

Barrier pertains to:



Alternative Fuel Infrastructure

9. Workplace Charging

- Lack of understanding regarding benefits and approaches to workplace charging.

Barrier pertains to:



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:



Alternative Fuel Vehicles

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:



Alternative Fuel Vehicles

13. Converting Conventional Vehicles to an Alternative Fuel

- Lack of understanding on the regulations, conversion kits available or companies that provide retrofit services.

Barrier pertains to:



14. AFV Technology

- AFVs lifespan and range (mainly for EVs) in some cases is not competitive with conventional vehicles.
- Technology will keep improving, people not making the investment until technology improves.

Barrier pertains to:





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