

FACT SHEET:

Alternative Fuel Vehicles in Energy Assurance Planning

What are alternative fuel vehicles (AFVs)?

According to the U.S. Department of Energy, "AFVs are any dedicated vehicle or dual-fueled vehicle designed to run on at least one alternative fuel", which may include ethanol, electricity, biodiesel, compressed or liquefied natural gas, and hydrogen, among others.

What is energy assurance planning?

Energy assurance involves a vast array of activities and falls into three main categories: (1) preparation and planning, (2) mitigation and response, and (3) education and outreach. Its goal is to achieve a robust, secure, and reliable energy infrastructure that is also resilient--able to restore services rapidly and assure public safety in a disaster.

What are the benefits of integrating AFVs in energy assurance planning?

During petroleum and diesel supply disruptions, the use of vehicles with flexible or alternative fueling capabilities can help mitigate demand spikes for conventional fuels and help meet essential public services needs for recovery, such as utility restoration, debris removal, and evacuation. In the long-term, incorporating AFVs into energy assurance plans enhances the ability of states to optimize the use and location of various types of AFVs during energy emergencies, while using their planning and purchasing behavior to increase market deployment of AFVs.

How prevalent are AFVs in states' energy assurance plans?

Nearly all of the states and territories have operational energy assurance programs. NASEO has reviewed the states' programs and energy assurance plans and found that 33 states have incorporated language about AFVs into their plans, with varying degrees of specificity. The ways that energy assurance plans have addressed AFVs include:

- Providing an inventory of existing or planned AFV fleets and fueling/charging stations within the state;
- Offering information about state laws, policies, programs, and groups (such as Clean Cities Coalitions) related to AFVs;
- Discussing the potential impact of increased AFV demand on the state's existing electric and natural gas infrastructure, and strategies to integrate electric vehicles with smart grid programs;
- Including voluntary or mandatory measures (such as AFV purchasing requirements) that the state must implement in order to respond to or mitigate the impacts of a fuel supply disruption.

These state energy assurance plans offer options and examples for states to augment the role of AFVs in their energy emergency response processes and realize the associated benefits. Coordination is needed among energy offices (which typically house energy assurance planners), Clean Cities Coalitions, state and local fleet managers, and other stakeholders to improve the integration of AFVs in efforts to promote energy resiliency and security.

About our Project

For nearly three decades, State Energy Offices and the National Association of State Energy Officials (NASEO) have worked to plan responses to and mitigate energy supply disruptions. For liquid fuels, such as gasoline and diesel fuel, a multi-pronged approach to mitigate supply constraints is key to the successful restoration of services and a return to normal economic activity.

As weather related disasters have become more frequent and disruptive to state and regional energy supplies, and the threat of cyber and other man-made disruption events continues to rise, the role of alternative fuel infrastructure and vehicles in responding to and mitigating the impacts of gasoline and diesel fuel shortages is growing in importance. The recent experience of Long Island, New York, and Atlantic City, New Jersey, in the wake of Superstorm Sandy reinforced the value of using AFVs in emergencies, as they became integral for recovery and evacuation efforts in those cities.

With support from the U.S. Department of Energy (DOE) Clean Cities Program, the National Association of State Energy Officials is engaging State Energy Offices and Clean Cities Coalitions to support the integration of alternative fuel vehicles in energy assurance planning as a means to meet critical needs during energy emergencies.

For more information or to become involved in this project, please contact Sandy Fazeli, Program Manager, at 703-299-8800x17 or sfazeli@naseo.org.