

GG154-14

202 (New), 407.4.3 (New)

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Add new definition as follows:

SECTION 202 **DEFINITIONS**

ALTERNATIVE FUEL VEHICLE. A dedicated, flexible fuel, or dual-fuel vehicle designed to operate on at least one alternative fuel, such as biodiesel (B100), natural gas and liquid fuels domestically produced from natural gas, propane (liquefied petroleum gas), electricity, hydrogen, blends of 85% or more of methanol, denatured ethanol, other alcohols with gasoline or other fuels, coal-derived and domestically produced liquid fuels, fuels (other than alcohol) derived from biological materials, and P-Series fuels.

Add new text as follows:

407.4.3 Alternative fuel vehicle refueling or recharging station. Where parking is provided for a building that has a *total building floor area* of more than 10,000square feet (929 m) and that has an *building occupant load* greater than 100, at least one refueling or recharging station that can provide alternative fuel to not less than two *alternative fuel vehicles* shall be installed.

Reason: This new section will provide another option that will reduce the energy and environmental impacts of transporting people, products, and services to green buildings. Allowing the option of providing refueling or recharging infrastructure will encourage the occupants of green buildings to drive vehicles that use alternative fuels.

The use of alternative fuels has many positive impacts for the United States. For many years, the US imported over 10 Million barrels of crude oil every day. At \$100 per barrel, that meant that \$1 Billion was being sent to other countries every day of the year (or \$365 Billion per year). With reduced imports due to higher fuel economy and increased domestic production, the US is still importing over 7 million barrels per day, at a cost of \$700 Million per day (assuming \$100 per barrel).

Many buildings are already providing refueling / recharging stations for their employees, visitors, or tenants. This new requirement will provide more options to code officials and building owners and designers to help mitigate the impact of transportation associated with green buildings.

The new definition ALTERNATIVE FUEL VEHICLES will improve the code and allow for more options by the building owners and designers.

The definition was created by the US government as part of the Energy Policy Act of 1992 (EPACT 1992). It can be located at the following US Department of Energy web site:
<http://www.afdc.energy.gov/glossary.html>

The use of alternative fueled vehicles has been increasing dramatically over the past several years, as indicated by the fact that there are now over 150,000 plug-in electric vehicles (plug-in hybrids or all-electric) being driven on US roads today.

In addition, as shown in the *Wall Street Journal* article of November 5, 2013 entitled "More Commuters Go It Alone", the percentage of American workers age 16 and over who drive alone to work has increased from 64.4% in 1980 to 76.3% in 2012. Provisions in this code that encourage the use of such vehicles will have significant national benefits.

Cost Impact: Will increase the cost of construction. The cost of refueling / recharging stations is directly proportional to the number of stations, the number of vehicles that can be served, and the energy infrastructure needed to serve the maximum number of vehicles that can use the stations.

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