The University of Georgia
You Have Choices

There are many alternatives and combinations of Fuels to lower the USA's dependency on foreign oil and provide cleaner air to breathe. *Dedicated vehicles, Hybrid vehicles, Bi-Fuel vehicles,* and *Flex Fuel vehicles* are types of vehicles that accomplish both of the above objectives. Through technology we have created vehicles that provide cleaner air but still use crude oil-based fuels from foreign countries. *LEV's* and *UlEV's* are some to name a few.

The University of Georgia is testing many of these vehicles and different fuels to help in cleaning the air and lowering the U.S. dependency on foreign oils. We have dedicated, bi-fuel, flex fuel, LEV's, and ULEV's. Also, we are making ethanol fuels and Bio-Diesel at the University.

The University is looking at ways to use alternatives with regard to their unique limitations. These limitations involve fueling infrastructure, range, and fuel storage. With the proper research and market knowledge all alternatives have a viable use. Alternative Fuels may become like a mutual fund with use of a wide variety to break the monopoly that crude oil has on the USA.

Alternatives or LEV's are required in certain geographic areas due to the high levels of various pollutants. These areas are known as NON-ATTAINMENT zones, which includes Metro Atlanta.

Bi-fuel vehicle run off of two different fuels through the same engine. The University uses CNG / Gasoline bi fuel vehicles. The basic idea for bi-fuel vehicles is to reduce the limitations of a dedicated vehicle, and still provide the benefits. By still using regular gasoline you have no limitations but none of the benefits. Bi-fuels are designed to run on CNG in the NON-Attainment areas then switch back in other areas until refueled with CNG. Bi-fuel vehicles are more versatile than Dedicate vehicles but do not provide the highest percent of the benefits.

Dedicated vehicles run only on one alternative fuel source. Examples are CNG (compressed natural gas), Electric, Propane, and Hydrogen. The University uses CNG and Electric as dedicated fuels. Propane was not chosen because it is a crude oil derivative and Hydrogen is not used because it is still in development. Dedicated vehicle have various limitations. CNG has all the limitations (range, fueling, and storage). These limitations are not big obstacles at the University because we do not travel very far daily and we stay in close proximity to the fueling station. The University's electric vehicle's known as NEV's (neighborhood electric vehicles) have fewer limitations. Electrics are limited mostly by fuel storage and range. CNG'S are very useful at the University and other areas with small confined zones. These could be universities, small towns and cities or small zones in larger cities.