Future Energy Challenges:
Alternative Transportation Fuels

The CSIS Energy Program and Global Strategy Institute with the National Renewable Energy Laboratory are launching a meeting series to assess transportation fuels and vehicle technology, two important options for changing the demand pattern in the United States. Addressing increased demand can happen in a number of ways: conservation, public transportation, and new vehicles. Getting the most attention in policy circles is alternative transportation fuels.

Rising demand is one of the principle concerns for looking at alternative energy sources, but increasingly environmental concerns, national security, and foreign policy concerns are drawing attention to these nonconventional alternatives.

The much-mentioned hydrogen economy will not make sufficient inroads in the United States in the near-to mid-term to cause a significant reduction in the liquid fuels demand. Therefore, we expect that the number of alternative fuels for transportation will grow substantially in the coming years to meet growing demand and to replace petroleum-based gasoline.

This increased demand may be met by increasing the fuels available for cars and trucks and by changing the technology of the vehicles people drive. Fuels may include: ethanol (including those from non-corn sources), biodiesel, synfuels, gas-to-liquids, coal-to-liquids, or other biomass options. The cars and trucks driven will expand on existing technologies: hybrid-electric, plug-in hybrids, natural gas, and flexible fuel vehicles. We anticipate that the fuel mix and the associated vehicles will become more diverse, and perhaps complicated, but will be based on the existing infrastructure used for gasoline today.

This project will assess the feasibility for bringing new alternative fuels to market and the related investment and infrastructure challenges for these fuels in competing in the gasoline market.

The project will open with a session providing an overview of the need for alternative fuels in the next two decades and the policy, infrastructure, and technological challenges to bringing new fuels into the mainstream market. A series of 6-8 lunch meetings focused on single fuel or technology will follow.