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## **Auxilium Green, LLC Develops a Novel Catalyst for Fuel-grade Ethanol Production**

Bedminster, New Jersey, July 6, 2011

Auxilium Green, LLC, a Pennsylvania based renewable energy company, has successfully developed a novel and highly efficient catalyst for the conversion of nonfood feedstock to high value biofuels. The performance of the supported non precious metal catalyst is superior in terms of alcohols productivity to most results reported in the literature under identical process conditions. The catalyst has been demonstrated in laboratory testing to be stable for over 500 hours with no loss in catalyst selectivity for alcohols. The catalyst performance exceeds the 2010 target performance set by NREL in terms of alcohols productivity and catalyst lifetime.

Unlike earlier fermentation based processes, this technology produces ethanol via catalytic thermochemical conversion of synthesis gas (syngas) produced from the gasification of non-food biomass feedstock, reforming or partial oxidation of landfill gas (biogas) or natural gas from stranded and uneconomical gas fields or associated/dissolved gas. The approach offers dramatic long-term potential to provide a novel, cost effective and high-yield pathway to non-food-based ethanol, meeting national objectives for fuel grade ethanol manufacture from renewable and underutilized sources.

"The development of the catalyst fits with the mission and objective of the company," said Mr. Ishmael Chalabi, Chairman of the Auxilium Group, parent company to Auxilium Green. "This is part of a wider growth strategy for our Group, targeting renewable energy and the promotion of low value hydrocarbon sources. The ethanol synthesis development effort represents an ongoing collaboration between the Auxilium Group companies. Our affiliate, Auxilium Energy, is leading the commercialization effort, while AMCS Corporation, our engineering and equipment arm, will provide the process technology and engineering. AMCS Corporation has the complementary technology needed, including proprietary syngas generation technology, to convert light hydrocarbons such as natural gas or landfill gas (biogas) to syngas. "

Auxilium Green, LLC, is a Pennsylvania based renewable energy technology company, with focus on applied research and development in the areas of gasification, gas cleaning, CO2 capture, upgrade of low value hydrocarbon sources, and Gas to Liquid fuel synthesis. Auxilium Energy, LLC, is a New Jersey based renewable energy commercialization company, encompassing the space between pilot plant and commercial scale demonstration. AMCS Corporation is a New Jersey based process technology company and supplier of process plants and equipment to the energy, chemicals, environmental, semiconductor, pharmaceuticals, glass, and metals markets. Along with air separation units producing oxygen, nitrogen, argon, neon, krypton, xenon, and HyCO units producing hydrogen, syngas, carbon monoxide, AMCS supplies plants for high-purity

electronic gases production, liquefied natural gas production, gas processing application and ship board process plants. As a full service provider of engineered solutions, AMCS has successfully executed turn-key projects in North America, Europe, South America, Middle East, and the Far East. AMCS' project and services capabilities, product portfolio, and references are available on its web site <http://www.amcscorp.com>.