Investment Opportunities in Biodiesel

Description:

Biodiesel(chemically known as fatty acid methyl ester) is an alternative fuel toconventional diesel (obtained from crude petroleum).

When vegetable oilor animal fat is chemically reacted with an alcohol (methanol) andcatalyst(caustic soda or caustic potash or sodium methoxide), biodiesel isproduced along with glycerineas by product. This process is calledtransesterification.

Biodiesel fuel haschemical properties that are similar to conventional diesel fuel and does notrequire any engine modifications or new equipment to enable its use as a blendstock or substitute for conventional diesel.Unlike conventional diesel fuel,biodiesel is renewable fuel andsignificantly reduces levels of harmful pollutants and global warming gases.

The feedstock (vegetable oil and fats) include the following

• Vegetable oils produced from oil seeds (like rape seeds /canola, soybean, sunflower, palm, jatropha,

corn, cottonseed, etc)

• Oil obtained from algae

• Used cooking oil and grease (yellow, brown, etc)

• Animal fat (beef tallow, poultry fat, pork fat, etc)

• Fatty acids including palm fatty acid distillate

• Wastes (e.g. waste oils, food processing wastes, etc),agricultural residues (straw, corn stover, etc),

forestryresidues and novel feedstocks, such as algae.

Current R&D on biofuels is mainly focused on:

• Developing cost-competitive advanced technologies toconvert wastes into fuels;

• Producing fuels with advanced properties that arecompatible with existing engines and infrastructures (for air, long-distancefreight, and shipping).

Keywords: Biodiesel, bio products , bio diesel , biofuels , Vegetable oils , jatropha , fatty acid, conventional diesel , waste oils , fossil fuels , biorefineries.

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