



## News Release

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### **Caterpillar Power Generation Systems Stakes Claim for Leadership in Renewable Fuels**

*(PEORIA, Ill.)* – Caterpillar Power Generation Systems (CPGS) is offering several alternative fuel solutions in response to the increased demand for incorporating biofuels in power generation. Recent strides in Caterpillar’s biofuel engine technology and the emergence of new international and domestic standards, have created expanded opportunities within the ever-growing renewable energy market. These initiatives include those guided by the International Energy Agency (IEA), as well as the Renewable Portfolio Standard (RPS) in the United States.

Many areas of the globe, either mandatory or voluntary, have set standards specifying that electric utilities generate a certain amount of electricity from renewable sources. In other words, a predetermined percentage of a utility’s power plant capacity or generation must come from renewable energy sources by a given date.

“Our fuel-flexible engines are available throughout the world. Caterpillar is dedicated to making alternative energy a global reality,” says Ennodio Ramos, managing director of CPGS. “We eagerly anticipate work on several major alternative fuel power projects internationally in the near future, which will only accelerate this evolution.”

Produced from vegetable oils, biofuels have existed since the 1800s. In 1912 when Rudolf Diesel introduced the engine that bears his name, he noted that it could operate with a

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variety of fuels, including vegetable oil. Today, CPGS engines support an even wider variety of fuels. They include traditional fossil fuels and biofuels, such as straight vegetable oil (SVO) of various origin (soybean, palm oil, rapeseed, sunflower or tallow/animal fats), and even some kinds of liquid waste.

While the use of biofuel can raise engineering, availability and regulatory issues, CPGS offers guidance and resources to help customers attain the maximum benefit from their use of biofuels.

Gert Hoffmeister, renewable fuels manager of CPGS, explains, “In terms of energy balance, not only does SVO represent a truly renewable fuel source, it also represents a much more efficient use of raw material.”

“We have performed extensive research on the burning of renewable fuels in our medium-speed engines, which can use a wide variety of biofats or biodiesel as fuel,” says Hoffmeister. Even without assigning any energy value to the co-products in the process (soy meal or glycerine), the net energy gain for SVO is approximately 60,000 Btu/gallon (a 104% increase over traditional fuels). Soydiesel’s net energy gain is approximately 37,000 Btu/gallon (a 45% increase). In addition, CPGS engines deliver an industry-leading 46 percent efficiency and comprehensive testing has verified only minimal variation in efficiency when utilizing biofuel.

According to John B. Campbell, senior vice president, Ag Processing Inc, SVO fuel reserves are plentiful. As he stated at last year’s National Institute of Oilseed Products general meeting, “You could build and operate more than 150 renewable energy power plants in the U.S. and it would have no impact on the available SVO fuel supply.”

As a result of using alternate fuels, CPGS generator sets offer excellent heat rates over a wide operating range, low de-rates at higher elevations and temperatures and excellent load response. Systems integrate a closed loop cooling process, which does not consume process water or require wastewater treatment or disposal.

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Caterpillar Power Generation Systems offers the electric power market a wide range of solutions that include engineered equipment, turnkey power plants, and financing, operation and maintenance services. For more information on Caterpillar Power Generation Systems, please visit <http://go.cateps.com/cpgs> or email [cat-powerplants@cat.com](mailto:cat-powerplants@cat.com).

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