

Converting the sun's energy into clean, affordable fuels

Ground-breaking concentrated solar gasification technology

Sundrop Fuels, Inc. is a solar gasificationbased renewable energy company with headquarters in Louisville, Colorado. Our advanced high-temperature solar gasification process turns almost any kind of plant material into ultra-clean, affordable liquid transportation fuel for use in today's autos, diesel engines and aircraft.

The Sundrop Fuels process centers on our *SurroundSun*[™] reactor technology, a proprietary solar-thermal biomass gasifier mounted on a tower and powered by a concentrating mirror field below, creating temperatures of over 1,300°C.





A Sundrop Fuels SurroundSun™ solar gasification-based biorefinery park will be capable of producing one billion gallons of green transportation fuel annually.

Using concentrated solar energy to drive the endothermic gasification reaction means nearly one hundred percent of the feedstock used actually becomes transportation fuel or power. This efficiency allows Sundrop Fuels to compete directly with petroleum products by producing ultra-clean fuels for an unsubsidized cost of less than \$2 per gallon.

As importantly, the Sundrop Fuels production life-cycle leaves no carbon footprint, and depending on the feedstock used actually reduces greenhouse gas in the atmosphere.

For these and many other reasons, Sundrop Fuels technology represents the *very best possible use* of the world's environmental, economic and energy resources.

Core elements of our unique technology were developed by and are licensed through the University of Colorado Boulder and the National Renewable Energy Lab (NREL). Sundrop Fuels' predecessor company, Solarec, began developing concentrated solar technology a decade ago with scientists from Los Alamos National Laboratory.

Sundrop Fuels is backed by two of the world's premier venture groups, Kleiner Perkins Caufield & Buyers and Oak Investment Partners. The company's management team is lead by recognized, highly accomplished industry veterans from the energy, chemical, solar and technology fields.

(Continued on reverse)





Sundrop Fuels solar gasification-based research and development facility in Broomfield, Colorado.

Commercial production to meet growing demands of the new energy economy

Sundrop Fuels' commercial production path will significantly reduce dependence on fossil fuels while helping to meet booming demands for new energy. Following demonstration plant operations, each of Sundrop Fuels' commercial solar units (CSU) and integrated biofuel production facilities will be able to generate more than 50 million gallons of transportation fuel each year.

Using a rapid replication construction approach, each of Sundrop Fuels' solar fuels parks will expand to include 20 or more commercial solar units, with each park generating greater than one billion gallons of clean transportation fuel annually.

Sundrop Fuels, Inc.

Technology & commercialization advantages

Uses the sun -- low-cost renewable energy -- to create ultra-clean fuel... Avoids <u>using</u> fuel to <u>make</u> fuel.

High-value, very high-temperature concentrated solar energy eliminates problematic tar formation of other processes.

Creates virtually no life-cycle carbon footprint, from feedstock production through ultimate fuel use... Can even *remove* more greenhouse gas than it creates.

Can use almost any plant material as feedstock:

- Agriculture waste like corn stover, rice straw and wheat straw
- Future energy crops like miscanthus and switchgrass
- Wood waste from forest thinning

Provides the highest carbon utilization of any renewable fuel process.

Sundrop Fuels can create a wide range of products including gasoline, diesel, other liquid fuels, and chemicals as driven by market demand.

Creates the most gallons of "green" gasoline or diesel per ton of biomass.

Is cost-competitive with existing petroleum fuels.

Can be distributed and is compatible with existing supply chains, pipeline infrastructure and engine systems.

Sundrop Fuels' team has already completed successful scale-up activities, including 60 kW_t laboratory demonstrations and 80 kW_t on-sun systems. The company is currently operating a 1.5 MW_t solar facility toward fully commercializing its *SurroundSun* systems.

Sundrop Fuels will begin construction in 2010 of a commercial-scale, revenue-generating *SurroundSun* facility that will be coupled with an integrated pilot-scale biorefinery producing 7-8 million gallons of transportation fuel annually. A full-scale commercial biorefinery producing 100 million gallons per year is planned for completion in 2015.

Sundrop Fuels, Inc.™

1722 Boxelder St., Louisville, CO 80027 • Main office: (720) 890-6501 • www.sundropfuels.com Corporate communications & news media: Steven Silvers at (303) 596-9960 or stevensilvers@gbsm.com

Sundrop Fuels and SurroundSun are trademarks of Sundrop Fuels, Inc. ©Copyright 2009 Sundrop Fuels, Inc.