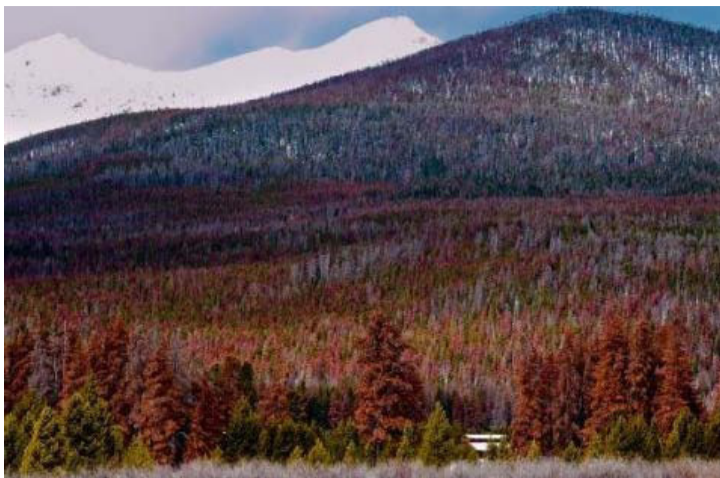


## USDA Announces Cool Planet and the Bioenergy Alliance Network of the Rockies Receive \$10 Million to Develop Sustainable Biofuels from Beetle-Killed Wood



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DENVER--(BUSINESS WIRE)--Cool Planet Energy Systems, a developer of small scale bio-refineries for the conversion of non-food biomass into biofuels and soil enhancing biochar, as a member of the Bioenergy Alliance Network of the Rockies (BANR), was awarded a grant by the US Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) to develop the scientific underpinnings for using beetle-killed wood as a sustainable feedstock for distributed bio-refineries.

"Infestations of pine and spruce bark beetles have impacted over 42 million acres of U.S. forests since 1996, and a changing climate threatens to expand the threat from bark beetle on our forest lands," said Agriculture Secretary Tom Vilsack. "As we take steps to fight the bark beetle, this innovative research will help take the biomass that results from bark beetle infestation and create clean, renewable energy that holds potential for job creation and promises a cleaner future for America. This is yet another reminder of the critical investments provided by the Farm Bill for agricultural research, and I urge Congress to achieve passage of a new, long term Food, Farm and Jobs Bill as soon as possible."

Organizations involved with the BANR project alongside Cool Planet include Colorado State University (CSU) as the project lead, Colorado State Forest Service, the U.S. Department of Energy's National Renewable Energy Laboratory (NREL), University of Wyoming, University of Montana, Montana State University, University of Idaho, and the USDA Forest Service, Rocky Mountain Research Station.

"I would like to thank the USDA for seeing the value that Cool Planet's technology can bring to turning beetle-kill wood into renewable fuels," said Colorado Governor Hickenlooper. "Now Cool Planet, in collaboration with the other Colorado-based members of the Bioenergy Alliance Network of the Rockies (Colorado State University, the Colorado State Forest Service at CSU, and NREL) will be able to demonstrate a solution to this problem."

Bark beetles have infested more than 42 million acres of timber with more than half of the infestation being in Colorado, Idaho, Montana, and Wyoming. In addition, wood from thinning for fire control and forest restoration in national forests is currently costly to manage and often burned in place for disposal. Congress did not anticipate this when passing the renewable fuels standard, so the project will investigate the policy implications, and inform a broad group of environmental and government stakeholders on the benefits of approving this feedstock for use in bioenergy applications.

"The unprecedented area of beetle-impacted forests across the Rockies presents both severe management challenges, especially with regards to fire risk, and new opportunities for renewable bioenergy," said USDA Forest Service Research Forester Nate Anderson, "This project will provide new knowledge and information to guide the sustainable and economic use of woody biomass from restoration treatments in these forests."

"The project will begin work by the end of 2013, with assessing beetle-kill feedstock availability and how to harvest and process the material in an environmentally and economically sustainable manner, while producing high quality renewable fuels and biochar that will reduce greenhouse gas emissions," said Keith Paustian, BANR Project Director at Colorado State University.

In addition to demonstrating the affordability and efficiency of the Cool Planet technology to make high octane, drop-in gasoline, the project will study how biochar that is also produced in the process can enable more productive forest and agricultural crop growth by returning nutrients and helping retain water in the soil. Part of the analysis will include modeling and lifecycle analysis to quantify the greenhouse gas benefits from using dead trees to produce biofuel and biochar.

"After we complete the modeling and lifecycle assessment, the alliance will work to educate the public and lawmakers on the socioeconomic benefits and policy support that will be necessary to solve this large-scale problem," said Margaret Mann of DOE's National Renewable Energy Lab.

Cool Planet will focus on the conversion of the biomass into biofuels and use of biochar for biofuel sustainability, while Universities and government agencies are evaluating topics such as feedstock availability, field-scale environmental impacts, emissions modeling and lifecycle assessment, education, extension and outreach. The research results will be used to help direct the best ways to sustainably utilize the pine bark beetle killed trees and restore the land to a better condition.

"We are very pleased that the USDA saw the strength of our proposal. The USDA sees our project at the nexus of producing biofuels and bio-based products, climate change, ecosystem restoration, and wildfire mitigation," said Rick Wilson, Cool Planet's lead on the project.

The BANR project joins six other regional bioenergy Coordinated Agricultural Projects (CAP) as part of a five year \$156 million investment to facilitate the development of sustainable regional production of biofuels and biobased products from non-food dedicated feedstocks including woody biomass, perennial grasses, energy cane, sorghum, and oilseed crops. The regional bioenergy CAP projects are funded through the USDA NIFA Agriculture and Food Research Initiative (AFRI) and are evaluated yearly with funding contingent upon progress and availability of funds.

More information about the project can be found at: [banr.colostate.edu](http://banr.colostate.edu).

### About Cool Planet

Cool Planet is deploying disruptive technology through capital efficient, small scale biorefineries, to economically convert non-food biomass into high-octane biofuels. The process also generates value through biochar production, which can be returned to the soil, enabling fertilizer and water retention for increased crop productivity, and more robust plant health. The process can be carbon negative, removing 100+ percent of the carbon footprint for every gallon used, reversing the consequences of fossil fuels. Cool Planet's technology has a broad portfolio of pending and granted patents. Global investors include BP, Google Ventures, Energy Technology Ventures (GE, ConocoPhillips, NRG Energy), and the Constellation division of Exelon.

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