

Item #16
June 29, 2011
Energy Commission Business Meeting

BioStar Systems, LLC

Grant Agreement ARV-10-049
for

Sonoma County Biomethane Production for Transportation Fuel

Summary

This project was one of 14 projects elected under PON-09-604, Biofuel Production Plants, which provided \$19 million in funding to increase statewide biofuel production.

BioStar Systems, LLC, is partnering with Sonoma County Water Agency (SCWA) and Sonoma County Transit to produce 240,000 cubic feet of biogas per day using a waste reception and blending facility, high temperature anaerobic digestion, and a biogas condition and compression facility. This project will produce 148,000 cubic feet per day of pipeline quality biomethane to be used by the Sonoma County Transit fleet. Excess gas will be distributed to publicly accessible compressed natural gas stations in the state. The feedstock used for this project will be dairy waste (75,000 gallons per day (gpd) and food processor waste (66,000 gpd).

The Energy Commission will provide \$3,372,314 in Alternative and Renewable Fuel and Vehicle Transportation Program funds, and project partners will provide match funding of \$3,372,314.

Benefits

This project is a part of the County of Sonoma's effort to implement a regional climate change program which aims to reduce GHG emissions by 25 percent below 1990 levels by 2015. The amount of biogas produced by this project is enough to fuel 33 of Sonoma County Transit's 45 fleet buses daily.

Biogas can be produced and sold at a lower cost than fossil fuels, and provide environmental, energy, and economic benefits. Dairy farmers and food processors will save on disposal costs and avoid capital costs for expensive infrastructure to comply with increasingly stringent air quality regulations. This project will employ the only thermophilic digester producing biogas for transportation in northern California.

The biomethane produced by the digestion of the waste will reduce greenhouse gas emissions by approximately 35,200 tons per year. Furthermore, this facility will reduce waste transportation costs for Sonoma County's food industry by an estimated

\$120,000 per year. The reduced hauling distance would conserve approximately 80,000 gallons per year of diesel fuel, the equivalent of 800 tons per year of carbon dioxide.

The project will generate approximately 94 jobs over the life of the project, including manufacturing and construction jobs.

Participants

BioStar Systems, LLC is a waste-to-energy company focused on agricultural manure, specifically, poultry manure. The company utilizes anaerobic digestion to convert the manure to biogas and residual solids. BioStar Systems will be partnering with Sonoma County Water Agency and Sonoma County Transit to implement this project and will be the project lead.

Sonoma County Water Agency and Sonoma County Transit are working with BioStar Systems on this project and will provide support in data collection as well as quality control.

Implementation Schedule

In the first three months of the project, BioStar Systems will work with the Sonoma County Water Agency to begin project coordination and site design. The following twelve months will include the site construction, and it is anticipated that the facility will be ready for operation in the summer of 2012.

CEQA

The Chief Counsel's Office has reviewed this project to determine what level of environmental review is necessary under the California Environmental Quality Act (CEQA) and recommends including a finding that Sonoma County Permit and Resource Management Department is the Lead Agency for the project, that the Lead Agency conducted an Initial Study and approved a Mitigated Negative Declaration, that the mitigation measures are within the jurisdiction of the Lead Agency, and that, with the mitigation, the project will not have a significant environmental impact.