

Project Fact Sheet

Location:

Dixon Ridge Farms in Winters, California

Project Funding:

California Energy Commission, Dixon Ridge Farms, and Community Power Corporation

Energy System:

BioMax 50 modular biopower system consisting of feedstock supply system, gasifier, heat exchanger, gas filtration system, engine generator, and internet enabled control system.

Goal:

This pioneering project will further develop and demonstrate CPC's BioMax, and LiquiMax systems to generate power, heat, and synthetic diesel fuel for operations at the Dixon Ridge Farm using on-site farm biomass residues.

The long range goal is to use these residues to make Dixon Ridge Farms energy independent ("off-the grid" and "off-the-pipeline") by eliminating the need for grid power, fossil-fuel derived heat, or liquid fuels.

Project Objectives:

1. Convert walnut shells into a) 50 kWe of utility grade electricity and b) heat to displace propane in commercial Sukup dryers used to dry walnuts.
2. Obtain air quality permits
3. Confirm char/ash to be non-toxic
4. Obtain 24/7 performance

Project Design:

Long-term in-field BioMax operation, research and development to further the ability of the BioMax, Thermal Max, and LiquiMax systems to assist America's farms to become energy independent

Phase 1 - (Nov/07)¹ BioMax 50 (CHP & displace propane to operate Sukup dryer

Phase 2 – (May/08) Initiate endurance testing program of 24/7 operation to identify opportunities to greatly increase system availability

Phase 3 - (December/08) Test CPC's prototype LiquiMax (syndiesel) module

Results:

Objective 1: Met objective

Objective 2: Met objective

Objective 3: Met objective

Objective 4: Exceeded objective (14 days continuous operation)

¹ See video of system at startup <http://www.ktvu.com/video/14623301/index.html?taf=fran>