

MARIPOSA BIOMASS PROJECT

SCOPE OF WORK

FUEL STUDY

APRIL 30, 2015

Introduction

The Mariposa Biomass Project is a nominal one megawatt power plant using biomass (wood chips) as a fuel to produce electricity. The project is currently being developed by a group of residents within the community with assistance from the State Wood Energy Team (SWET). The primary purpose of the facility is to provide a sustainable and economically viable means to reduce the impact of fires on public and private lands and promote public safety and healthy forests by producing electricity, biochar and thermal energy from the wood waste material collected from areas within the community.

The proposed location of the facility is in the general vicinity of the Mariposa County Landfill, located off California Highway 49 approximately two miles north of Mariposa. The location was selected due to its location near a PG&E substation, favorable zoning, easy access to a major highway and adequate land readily available. A Rule 21 Pre-Application Report has been completed with PG&E. The report indicates that the site is favorable for interconnection.

It is estimated that the nominal one megawatt facility will operate approximately 8000 hours per year and will require approximately 8000 bone dry tons of biomass fuel per year.

Purpose

The purpose of this study is to verify that there is a sustainable fuel supply of biomass at price that insures the financial viability of the project. The results of this study will be incorporated into a complete feasibility study, which will serve as the technical and commercial basis for financing this project.

Fuel Study

In general, the study shall address all possible fuel sources within the fuel study target area and methods for purchasing the fuel. Results shall be presented in a chart format with quantities summarized on an annual basis. The study shall include a supply cost curve indicating the quantity of fuel available as a function of price. The study shall quantify the fuel chipped and delivered to the facility in dollars per bone dry ton for each of the various fuel sources. Fuel types shall be identified as well as estimated quantities available and source of supply, e.g. timber harvest residuals generated by the Park Service and/or Forest Service. The study shall quantify dead and down trees and live trees within the target study area to inform our own understanding of fuel sustainability and fire hazard. Fuel costs shall be

broken down as to the cost to cut and collect, chip and haul, if applicable. The study shall note the assumptions on which the potential biomass availability is based, e.g., the number of acres per year on which the Fire Safe Council plans to conduct fuel treatments and what portion of materials might be recovered and transported. The study shall also address the availability of saw logs within the study area, including timber harvest levels as tracked by the Board of Equalization. The study shall address the sustainability of the fuel source and include a ten year fuel pricing estimate. The study shall also address the competing demands for the biomass fuels within the biomass fuel supply area as well as future demands and competition for the fuel and any possible competing projects. The study shall include a recommendation as to how to proceed with contracting for each fuel source. This will include information such as the type of contract needed, a contact name and phone number and/or e-mail address at the source agency, average length of contract, estimated time for contract development and execution, and , if possible, the number of similar contracts in the state or target study area.

Target Study Area

In general the study shall investigate all sources of fuel within a 30 miles radius of the power plant or other reasonable distance based upon hauling costs. This shall include:

1. Sierra National Forest
2. Yosemite National Park
3. Bureau of Land Management
4. County Property
5. Private Land Owners
6. Other

Sources of Fuel

In addition to published literature surveys, the consultant shall contact various agencies within the target area to ascertain their plans for fuels treatment and forest restoration activities. These include:

1. CalFire
2. Mariposa County Resource Conservation District
3. Mariposa Fire Safe Council
4. National Park Service
5. Natural Resource Conservation Service
6. US Forest Service
7. Bureau of Land Management
8. PG&E/Utility Tree Service
9. Private land management foresters
10. Mariposa County Public Works Department
11. Caltrans
12. Other

Schedule

A preliminary copy of the report shall be made available for review and comment by the developer, prior to issuing of the final report. The final report shall be issued within 90 days after notice to proceed.