

## GRANT PROGRESS REPORT OUTLINE

GRANTEE: Placer County

GRANT YEAR: 2011

GRANT NUMBER: 11-DG-11052021-160

GRANT PROGRAM: 2011 Hazardous Fuels Woody Biomass Utilization

GRANT EXPIRATION DATE: 12/31/2012

DATES COVERED BY THIS REPORT: January 1, 2012 to March 31, 2012

For each project in the grant narrative, report on the following (electronic format is preferred, but handwritten responses, if clear, will be accepted - please use additional pages if needed.):

Lake Tahoe Region Biomass Energy Facility Technology Integration and Preliminary Design Project

- STATUS

Our project is active and on-schedule according to original timeline. A second contract with Wood Rodgers, a local engineering firm, has been signed and they are performing the tasks associated with the intermediate site plans and design drawings. TSS has signed their contract and has begun their task of technology integration into the design. A new site layout drawing and a first iteration 3D conceptual building design has been prepared. Specific details follow in our progress report.

- WHAT HAS BEEN ACCOMPLISHED SINCE LAST PROGRESS REPORT?

**Site Layout Design** – The project team has made several changes to the preferred site for this project and a new plan has been documented (a PDF is attached). We expect only minor changes as we get newer information with this site moving forward.

**Gather Background Information:** Wood Rodgers continued to collect information regarding the existing on site infrastructure as well as additional detail regarding typical bio generation facilities. To assist in the preliminary design, specifically, the size of the area in which the bio-energy facility will be located, gasification technology vendors/developers were contacted and queried by TSS as to their area size requirements. These vendors/developers were supplied with a draft of the Preliminary Design Site Plan, and discussions were held with them. As part of the development of the next draft of the Site Plan, discussions of potential different sizes of the facility building pad, facility building size, include square footage and height requirements for their specific system configuration and equipment. This information was then supplied to the site plan engineer for consideration and incorporation into Site Plan. They included required facility size requirements, anticipated equipment, and likely power requirements.

**Site Drainage and Water Quality:** In conjunction with updating the site layout, site drainage and water quality needs were assessed in greater detail. Improvements incorporated into the preliminary layout included a storm drain/infiltration trench, a larger water quality basin, as well as the anticipated storm water discharge location. Existing drainage shed determination and preliminary drainage calculations were performed to approximately size these facilities.

**Updates of Preferred Alternative:** The Conceptual layout for the preferred alternative was updated to incorporate a new building configuration, Truckee Fire Department comments, and more detailed water quality and drainage analysis.

On-Site Circulation Patterns: Access to and from, as well as through the site were considered during development of the site plan. A WB 50 truck (standard biomass load transfer truck) was identified as the specific design vehicle and truck turning movements of this vehicle were assessed to, through, and from the project site.

Incorporation of Project Team Feedback: The preliminary layout was forwarded to the Project Team for their input and feedback. Input ranging from building size and location, typical facility operations, adjacent roadway safety, parking, as well as infrastructure was provided. These comments were incorporated and used to update the preliminary site layout. Several iterations of the plan were presented and subsequently reviewed until a viable alternative which suitably addressed current project concerns was completed.

Requests for Clarification: Upon completion of the updated site layout, Wood Rodgers provided response to requests for clarification on specific design elements as requested. Clarifications typically centered on various site limitations, such as site grades or existing infrastructure, which may have precluded other alternative site layouts during development of the plan.

**Conceptual 3D Building Design** – The project team has developed a preliminary set of design decisions to allow for a first conceptual building design drawing from 3 aspects which has been documented (a PDF is attached). We expect as we get newer information the full internal layout will be developed and possible changes to the overall shape and size may also change.

Visual Simulations: Visual simulations from 3 perspectives have been prepared for the project site. These will be utilized for visual impact analysis, as well as for public information.

Support of the Environmental Process: In support of the EIR documentation being prepared by Placer County and Ascent Environmental, Wood Rodgers provided pertinent engineering input as required. Wood Rodgers support of environmental process ensured that the design intent was properly incorporated into the accompanying Environmental Impact Report for the Placer County Biomass Facility project.

Technical Integration: Information was acquired from the gasification technology vendors/developers as to their systems utilities needs, specifically electrical utility needs for facility startup.

- WHAT PERCENT OF WORK ASSOCIATED WITH THE GRANT HAS BEEN ACCOMPLISHED TO DATE?

Approximately 15% of the work has been accomplished to date.

- WHAT IS PLANNED FOR THE NEXT PROGRAM REPORT PERIOD (usually 6 month report period)?

Our work plan shows that we will complete the intermediate site plan and 3D conceptual building design drawings including the layout of equipment. Also we will complete the integration of chosen technology into the plans.

The majority of the design work will be accomplished in the final two quarters of this grant. Final decisions will be made for the upcoming permit hearings and then detailed design drawing will be developed for possible building permits and construction bids shortly after the completion of this grant work.

- PROBLEMS ENCOUNTERED

No problems have been encountered to date. We do not anticipate any grant timeline extensions.

- CHANGES PLANNED

No changes planned.

- OTHER COMMENTS:

No further comments.