WORK ORDER NO. 2
CORN STOVER FEASIBILITY ANALYSIS
For
GREEN INSTITUTE BIOMASS FUELS FEASIBILITY ANALYSIS FOR ROCK-TENN

This Work Order is pursuant to the Professional Services Agreement between Green Institute Inc. (GI) and Port Authority of the City of Saint Paul (SPPA) dated XXXXXX. The terms and conditions of this Professional Services Agreement apply to the Scope of Work described in this Work Order.

BACKGROUND:

The work conducted by the GI is only a component of the project contemplated by SPPA to provide energy for Rock-Tenn's St. Paul paper mill, and the GI's work is not the only determining factor in determining a fuel supply strategy for the project. It is expected that regular check-in meetings will occur to kept the GI's work team up to date on project developments as well as to help determine key assumptions used by the GI. These assumptions include but are not limited to: any conversion technology (boiler) fuel specifications for moisture content, sizing and other properties; availability and suitability of space at Rock-Tenn's St. Paul facility for fuel delivery and processing; total quantities of fuel needed; and any pricing constraints for fuel that may be determined from analysis of an overall project financial model.

SCOPE OF SERVICES:

The available quantities of corn stover are larger than any of the other currently-available fuel sources identified in Green Institute's March 2007 report. Thus more detailed consideration of this fuel source is an important first step in further analysis of biomass fuel utilization at a Rock-Tenn biomass energy plant.

GI. will conduct a feasibility analysis of a biomass fuel supply system whose primary feedstock would be corn stover to:

1. Determine the input (physical) requirements;
2. Assess the transactional (business) requirements;
3. Estimate capital, operating expense and revenue requirements; and
4. Justify conclusions regarding the viability of a corn stover supply system to reliably and economically meet the fuel requirements of the Rock-Tenn plant.

Conceptually, this is a feasibility study of a fuel-supply enterprise. The business of this enterprise would be to deliver conforming fuel as scheduled and priced to the Rock-Tenn plant. The two primary functions of this enterprise would be:

- Organization of primary suppliers (farmers) or aggregators of corn stover
- Fuel delivery in a form acceptable for plant operations

Primary tasks of the feasibility analysis will be:

Task 1 - Confirm the cost elements of corn stover procurement (chopping, raking, baling, road-siding/farm storage, and nutrient replacement).

Task 2 - Assess current capacities (equipment and labor) to harvest corn stover, and appraise measures necessary to increase capacities. This would be specific to the location from which the corn stover would be procured.

Task 3 - Appraise sufficiency of hauling capacities, and any additional capacity that would need to expand to accommodate the fuel supply enterprise.

Task 4 - Conduct business discussions with farmers, custom harvesters, cooperatives and other potential aggregators, culminating with execution of non-binding term sheets, proposals, letters of intent, etc.

Task 5 - Appraise options for on-farm storage, intermediate storage and remote storage.

Task 6 - For different scenarios, determine physical requirements for storage facilities.

Task 7 - Analyze and validate operations and logistics.

Task 8 - Produce financial analyses.

Task 9 - Write a feasibility analysis report.

Project Team

Green Institute Inc. and its subcontractors will primarily utilize Carl Nelson, Steve Taff, and Ken Campbell on this task order.

DELIVERABLES

Draft Feasibility Analysis Report

Final Draft Feasibility Analysis Report

PowerPoint presentation of findings

ASSUMPTIONS AND CLARIFICATIONS

- This scope of work does not include detailed consideration of the processing needs for the fuel, which GI assumes will occur at the Rock-Tenn site. Fuel processing can be a significant cost component of a biomass fuel supply enterprise.
- The scale of operations of a corn stover supply system can have significant impacts on cost. Based on conversations with the project team about the ability of the energy conversion system to accommodate corn stover, GI's starting point is for a fuel supply system to provide 33% of Rock-Tenn's current energy needs from corn stover. It is recognized that boiler constraints, boiler sizing and configuration, economics and other factors could influence the actual quantities of corn stover to be delivered by the fuel supply enterprise. GI will rely upon project team for further guidance on quantities and proportion of total fuel demand to be provided by corn stover and other fuels that contractor may consider.