Appendix F

Financial Forecast Model

The financial forecast model has been prepared by Bryan & Bryan, Inc. (BBI), utilizing assumptions provided by the National Renewable Energy Laboratory (NREL) and other ethanol industry sources in order to test the financial feasibility of an ethanol production project. Actual operating results over the term of the forecast are dependent upon a number of factors that are not predictable at this time and, therefore, may vary significantly from the forecast. These factors include, but are not limited to, the choice of process technology; market conditions affecting ethanol, by-products and feedstock; the long-term cost of utilities; the performance of management; and the political and regulatory climate affecting ethanol and feedstock markets. The model, which is intended to be a management tool, may not accurately reflect the performance of the project once it is developed.

Assumptions

All of the underlying assumptions used in preparation of the financial forecast are included on pages 81, 82 and 83. This is a financial *model* – any change in the assumptions will trigger related changes to the forecast. The worksheet on page 81 allows the reader to choose the feedstock for the project, and that choice will automatically change many of the assumptions in the model to correspond to information provided by NREL.

Development Period

Page 87 contains a proposed funding schedule for development of the project, with notes at the top of certain columns referencing further underlying schedules in the forecast.

Project Financing

The forecast assumes that total permanent financing of $55,000,000 is available to the company. The forecast further anticipates that there will be a revolving line of credit of available to the company as a working capital facility to be secured by a priority lien on accounts receivable and inventories, but assumes no drawdown of that facility. The debt is assumed to have been drawn down on the basis of budget and construction progress milestones (page 87) and only after all of the equity investment had been allocated. This assumption may differ from the actual performance of the sponsoring company during construction.

Total cash equity investment is assumed to be $40,000,000. The forecast assumes that all of the equity investment is available to the company on the first day and that there were some interest earnings from investment of the funds prior to their being fully spent on development period costs. The model requires that any changes to the level of debt or equity be made manually with a change in feedstock, plant sizing, etc.

Products

Ethanol. The model assumes that ethanol production will vary in accordance with the choice of feedstock, based on NREL yield assumptions. The base case assumes the use of wheat straw and a yield of 53 gallons of anhydrous ethanol per bone dried ton processed. The ethanol is assumed to be denatured with 5 percent regular unleaded gasoline prior to sale. The forecast assumes that the project will receive a sales price based on the price of unleaded gasoline plus the effect of any federal and state tax incentives. The net price received by the project will be after payment of transportation and handling costs and after payment of any applicable sales commission.

Lignin By-Product. The project will produce varying amounts of lignin residues in conjunction with the use of specific feedstocks. All of the lignin is assumed to be sold for fuel on the basis of its energy content as measured in millions of British thermal units (Btu). The amount of lignin will be determined by the characteristics of the feedstock. However, it is assumed to have a saleable energy content of 1,006 MMBtu/hour at full production when the feedstock is wheat straw utilized at the feedrate given in the model. A three-day inventory is assumed. The value of by-products will vary with the price of energy and with the cost of competing products. The forecast assumes an initial sale value of $2 per MMBtu delivered, before payment of any sales commission.

Carbon Dioxide (CO_2). Carbon dioxide is produced as by-product of the fermentation process in direct relationship to the volume of ethanol produced. No assumption is made in the forecast for the capture and sale of CO_2.

Feedstock

The study identified a number of potential feedstocks for use in cellulose to ethanol production in Oregon. The model allows for a choice of five feedstocks based on the characteristics and assumptions on the use of each provided to BBI by NREL.

Utilities

Steam. Process steam is assumed to be generated by the project's natural gas-fired boiler system (see "*Natural Gas*" below). Consumption is based on the choice of feedstock and its feedrate. The model does not assume any production of steam from sources other than natural gas.

Electricity. Estimated electrical usage varies directly with the plant operating rate and the choice of feedstock.

Natural Gas. The project will produce process steam from its own boiler system, but does not dry its byproducts. Usage will vary with the level of plant operations and choice of feedstock.

Process Water. Estimated usage of fresh water at full production is per NREL estimates for each of the modeled feedstocks.

Effluent Disposal. Total hydraulic load for process effluent is per NREL estimates for each feedstock.

Denaturants

The cost of denaturant will vary with the wholesale price of unleaded gasoline at terminals closest to the project site.

Chemicals, Enzymes & Yeast

The use of chemicals and enzymes has been estimated at a cost per gallon of ethanol produced, based on the choice of feedstock and estimated pricing for individual materials when a project is commercially developed. The development of enzymes at a competitive cost for use in cellulose conversion has been a major impediment to development of the biomass fuel industry.

Labor & Benefits

The project is expected to employ thirty people, with job titles and assumed base salaries listed on page 93. Additional employee benefits are assumed to cost 35.00% of salaries. The position titles and job responsibilities may differ when the project is developed. Page 93 of the forecast exhibits an assumed timing for filling each job position and may not accurately affect the timing of staffing the project when it is finally developed.

Maintenance Materials and Services

This category includes expenses for consumables and services in the maintenance operations of the production facility, offices and laboratory.

Administrative/Office Expenses

During the development period (page 91), this category includes the cost of identifying, relocating and hiring plant personnel, together with a budget for legal, accounting and travel expenses. Subsequent years' budgets are primarily to cover anticipated legal, accounting and travel expenses as well as the cost of office supplies and services.

Depreciation

Depreciation of expenditures for plant and equipment, including an allowance of $100,000 per year for capital improvements (page 86, "Investing Activities), are scheduled on a twenty-year basis. Certain capitalized fees and expenditures from the development period are amortized on a 10-year schedule.

Taxes and Insurance

The forecast contains an allowance for local property taxes and property insurance premiums. There is no provision for payment of income taxes, as a legal structure for owning the project has not been developed or assumed.