

**THE LAW OF ALGAE**  
**—Financing Your Algae Biofuels Project—**

Debra H. Frimerman  
Stoel Rives LLP  
33 South Sixth Street, Suite 4200  
Minneapolis, MN 55402  
612-373-8819  
dhfrimerman@stoel.com

Financing an algae biofuels project requires a substantial amount of capital. The financing sources for an algae biofuels project broadly fall into two main categories: equity and debt. The availability of equity or debt for the project often depends on the stage of project development. In addition, making maximum use of available tax incentives and other government incentives may have a significant impact on the overall project financing package. Government grants, including those under the American Recovery and Reinvestment Act of 2009 (“ARRA”), also present potential funding opportunities for developers of algae biofuels projects.

**I. Equity Financing.** Adequate equity is critical to the successful development of an algae biofuels project. Often the equity component is difficult to raise because the equity capital is generally the most at risk capital in the project. This high risk, particularly in a project that utilizes unproven technology, usually requires a higher reward to make the investment worthwhile to the potential investors. Federal and state securities laws further complicate the process of finding public or private equity investments for an algae biofuels project. Algae companies like [Sapphire Energy](#) have received significant equity infusions from investors to fund early stage development activities.

**A. Securities Laws.** To raise equity, a project must offer and sell securities either after registering under the Securities Act of 1933, as amended (the “Securities Act”), and applicable state laws or pursuant to exemptions from registration.

**1. Registered Public Offering.** Registration requires a project to prepare and file a detailed registration statement with the [Securities and Exchange Commission](#) for its review and approval. Unless the securities are going to be traded on a national securities exchange, such as Nasdaq®, the securities must also be registered under the applicable state securities laws. Once the registration statement is effective, the project can publicly offer its securities.

**2. Private Offering.** One of the most common offering exemptions is pursuant to Rule 506 of Regulation D of the Securities Act for transactions not involving a public offering. In general, sales can be made to an unlimited number of accredited investors (as defined in Regulation D) and up to 35 nonaccredited investors. There can be no general or public solicitation or general advertising, the securities cannot be resold unless registered or otherwise exempt, and the company must satisfy certain disclosure requirements. Securities sold in accordance with Rule 506 are exempt from state registration requirements.

**3. Intrastate Offering.** Another potential exemption is the intrastate exemption, which exempts from federal securities regulation offers and sales of securities that are offered and sold only to persons in one state. In general, to qualify for the intrastate exemption safe harbor, the company must be organized, doing business, and making offers and sales of its securities in the same state; the offers and sales can only be made in that state and cannot be made to any resident of another state within six months of the offering; and any transfers of the securities within nine months of the offering must be made only to residents of that state. The securities must be registered or exempt under the applicable state securities laws.

Financing an Algae Biofuels Project				
	Pre-Development	Development	Construction	Permanent Financing/Operation
<b>Equity</b>	Friends & Family Angels Grants	Friends & Family Angels Govt Grants Strategic Partners	Govt Grants Private Equity Strategic Partners	Govt Grants Tax Equity Private Equity Strategic Partners
<b>Debt</b>			Construction Loan Traditional Bank Loan Guaranteed Bank Loan Equipment Leasing	Permanent Mortgage Traditional Bank Loan Guaranteed Bank Loan Bonds Line of Credit
<b>Other</b>			Tax Incentives	Tax Incentives
<b>Project Risk</b>	High → Low			
<b>Capital Availability</b>	Low → High			

Diagram of example financing options for an algae project.

**B. Types of Investors.** There are many types of potential investors that might be interested in investing in your algae biofuels project. Individuals, institutional investors, and corporations all invest in projects for different reasons. Individual investors are generally best suited for the early stages of a project because of the high risk involved in such investments and because of the lower dollar amounts being invested. Some of the most common types of equity investor categories are:

*Self Financiers* - individuals developing or owning the project put up their own capital.

*Friends and Family* - individuals investing based on personal relationships with the owner or developer.

*Angels* - individuals investing for an investment return or other reasons other than a personal relationship with the owner or developer.

*Community Members* - individuals in the same general location as the project investing for an investment return and the benefits the project will bring to the community.

*Institutional Investors* - financial institutions investing in the project for investment returns.

*Corporate Investors* - corporations investing for investment returns or for other strategic reasons.

**C. Finding Equity Sources.** The best way to attract investors is by doing your homework and making sure that you understand who you are talking to and what motivates them. Things to consider when determining how to focus your equity fundraising efforts are:

*Project Development* - early stage investors typically require higher rates of return because the earlier an investment is made in a project, usually the higher the risk.

*Project Cost* - generally, individual investors fund smaller projects and feasibility-stage developments whereas public offerings, large institutions, or corporations fund larger projects.

*Liquidity* - possible exit strategies and realizing a return on investment is very important to investors.

*Industry Experience* - industry experience and connections of investors can be valuable to a project and should be considered in fundraising efforts.

## II. Debt Financing.

**A. Limited Recourse Debt: Project Financing.** Limited recourse financing, also known as project financing, is when the payment of the debt is backed only by the project assets and the revenues the project is able to generate. If the project fails to produce the revenues needed to pay expenses and service the debt, the lender can only pursue the project assets and revenues and not the assets or revenues of the investors. Because the lender is limited to project assets and revenues to secure repayment of the debt, there is typically an extensive due diligence process by which the lender investigates the project to make sure that it will operate successfully (*i.e.*, pay its bills) even in a worst-case scenario. Complex securitization agreements and structures must be put in place with the lender to make sure that if the project cannot be operated successfully, the lender has recourse. Please see “The Law of Biofuels - Financing Your Biofuels Project” written by Edward D. Einowski, Clint M. Hanni, Joe R. Thompson, David L. Benson, and John M. Eustermann for more information on limited recourse debt financing.

**B. Full Recourse Debt: Balance Sheet Financing.** Full recourse financing, also known as “balance sheet” financing, is when the payment of the debt is backed by the legal obligation of an entity with sufficient financial resources (*i.e.*, its balance sheet) to underwrite the risk that the project will be successful and the debt will be repaid. Balance sheet financing is generally available only to large entities that have substantial liquid and tangible assets, acceptable levels of debt, and a proven track record of earnings. In many cases, balance sheet financing is not an option for algae biofuels projects because the projects and the investors do not have the types of balance sheets lenders require. Even if a project or investor does have the necessary type of balance sheet, full recourse debt still may not be used because the more the balance sheet is used to support project debt, the less it will be available for other corporate purposes. Please see “The Law of Biofuels - Financing Your Biofuels Project” written by Edward D. Einowski, Clint M. Hanni, Joe R. Thompson, David L. Benson, and John M. Eustermann for more information on full recourse debt financing.

**C. Loan Guarantees.** Both the United States Department of Agriculture (“USDA”) and the Department of Energy (“DOE”) have loan guarantee programs that may be available to an algae biofuels project. One important difference between a loan guarantee from the USDA and one from the DOE is that the USDA programs generally require a lender to be identified at the time of the application whereas the DOE does not generally have such a requirement.

**1. USDA Loan Guarantees.** The USDA provides loan guarantees through a variety of programs, including the Rural Development Energy Program (“REAP”), the Biorefinery Assistance Program and the Business & Industry (“B&I”) program. Please see below for more details on REAP and the Biorefinery Assistance Program. ARRA appropriated \$1.7 billion for B&I loan guarantees. The B&I program is not specific to renewable energy. However, commercially available energy projects that produce biomass fuel must be located in a rural area and complete two operating cycles at design performance levels to be eligible for B&I loan guarantees. USDA will guarantee between 60 percent and 90 percent of the loan, depending on the loan size. The maximum loan amount for a legal entity other than a cooperative is \$10 million, although an exception can be made for loans up to \$25 million.

2. **DOE Loan Guarantees.** There are two loan guarantee programs being administered by the DOE of interest to algae biofuels projects: one is under Section 1703 of the Energy Policy Act of 2005 and the other is Section 1705 of the Energy Policy Act of 2005, which was added as part of ARRA. The Section 1703 program is available only for innovative projects whereas the Section 1705 program is available for commercial renewable energy projects. There is an open solicitation under the Section 1703 program for innovative technologies for a total of \$8.5 billion in funding. ARRA appropriated up to \$500 million to pay for the credit subsidy costs of federal loan guarantees under Section 1705 for up to 80 percent of the costs of leading-edge biofuel projects using technologies that (1) are performing at the pilot or demonstration scale, (2) are determined likely to become commercial technologies, and (3) will produce transportation fuels that substantially reduce lifecycle greenhouse gas emissions compared to other transportation fuels. Eligible projects must commence construction by September 30, 2011. There are no current solicitations for algae biofuels projects under Section 1705. Please see “Show Me the Money - Biofuels Industry” written by Janet Jacobs, Dina Dubson, John Laney, Graham Noyes, David Benson, and the author for more information on this program.

**III. Tax Incentives and Other Tax Considerations.** Tax considerations may play a crucial role in the overall financing of an algae biofuels project. Like many other alternative energy sources, algae biofuels may qualify for certain tax credits and other tax incentives that, if properly utilized, can provide significant financing advantages. Making the most out of the available tax incentives also may strongly influence choice-of-entity, debt vs. equity, and other financing decisions. Identifying and maximizing the benefit of tax and other government incentives require careful advance planning.

Generally, producers of certain blends of biofuels and taxable fuels may qualify for a refundable credit against the excise tax imposed on the removal of taxable fuel from a refinery or terminal, the entry of taxable fuel into the United States, or the sale of taxable fuel. To qualify for the credit, the blender must either use the qualifying mixture in its own trade or business, or sell the qualifying mixture to a buyer for use as a fuel in the buyer's business. Alternatively, a producer of algae-sourced biofuels may be eligible for a credit against income tax liability with respect to alcohol or biodiesel blended, sold, or used as fuel in a trade or business. Each of these credits currently is set to expire on a specific date, and timing is therefore very crucial.

In addition to tax credits, an algae biofuels project may qualify for bonus depreciation, accelerated depreciation, and other tax benefits. These tax benefits can create significant tax losses that, if financing is properly structured, can provide a significant component of an investor's overall return.

Some states also offer incentives to promote the development of biofuels and other alternative energy projects. Whether a particular project will qualify for these programs depends on a number of factors, including the location and production timeline of the facility.

For a more detailed discussion of the federal, state, and local income tax issues associated with an algae biofuels project, please see “Law of Biofuels - Tax Issues” written by Charles S. Lewis, III, Robert T. Manicke, and Kevin T. Pearson, which is current through August 6, 2008.

**IV. Government Grants.** Government grants, including those described below, may be available to your algae biofuels project. Please note these opportunities are current through August 12, 2009 and may not include all federal grants that may be available to your algae biofuels project.

**A. Algae Consortium.** On July 16, 2009, the DOE announced funding of up to \$85 million over a three-year period for the development of algae-based biofuels and advanced, infrastructure compatible biofuels. Applicants must be part of a consortium and will have to provide a 20 percent cost-share from nonfederal funds.

Applications are due September 14, 2009. Please see “Show Me the Money - Biofuels Industry” written by Janet Jacobs, Dina Dubson, John Laney, Graham Noyes, David Benson, and the author for more information on this program.

**B. State Energy Program.** ARRA provided \$3.1 billion for the State Energy Program, a flexible federal-state partnership implemented by state energy offices to provide additional funds that do not need to be matched by state funds, allowing the states to leverage federal funds to match state, local, and private efforts for funding energy efficiency, renewable energy, and a wide variety of energy measures. Each state has been awarded a pro rata share of the funds on the basis of its share of total electric consumption. Funds under this program are intended to be available only to states that intend to adopt strict building energy codes and incentivize utilities to adopt energy efficiency measures. Many states rolled out their programs to utilize the monies during May and June 2009. Please see “Show Me the Money - Biofuels Industry” written by Janet Jacobs, Dina Dubson, John Laney, Graham Noyes, David Benson, and the author for more information on this program.

**C. Advanced Research Projects Agency - Energy.** ARRA also provides the Advanced Research Projects Agency - Energy with \$400 million to support innovative energy research that could include biofuels projects. There are no current funding opportunities under this program. Please see “Show Me the Money - Biofuels Industry” written by Janet Jacobs, Dina Dubson, John Laney, Graham Noyes, David Benson, and the author for more information on this program.

**D. Rural Energy for America Program.** REAP provides funding for energy audits, feasibility studies, rural energy efficiency projects, or rural renewable energy production. Grants under this program may fund up to 25 percent of project costs (capped at \$500,000), and loan guarantees may fund up to 75 percent of project costs (capped at \$25 million). There are no current funding opportunities available under this program.

**E. Biorefinery Assistance Program.** The Biorefinery Assistance Program provides assistance in the development, construction, and retrofitting of biorefineries. Demonstration scale biorefineries are eligible for grants and loan guarantees, while commercial scale biorefineries are solely eligible for loan guarantees. Federal grants can provide up to 30 percent of project costs, and federal guaranteed loans can provide up to 80 percent of project costs.

**F. Bioenergy Program for Advanced Biofuels.** The Bioenergy Program for Advanced Biofuels provides payments to agricultural producers of feedstocks for advanced biofuels. Facilities that exceed total refining capacity of 150 million gallons per year are able to receive only 5 percent of these funds.