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Biomass Project Financing Solutions in Today's Difficult Capital Markets

Government grants and loan guarantees could be used to help fund biomass projects until the economy improves.

by Sue Wyka

The biomass industry presents exciting new opportunities in renewable energy. As an emerging industry, there remains a lot of uncertainty around feedstock costs, supply and aggregation, technology and off-take contracts. Project finance is difficult in the best of times, but it is especially challenging in today's capital markets. The bright side is the amount of money flowing from the federal government into renewable energy in the form of grants and loan guarantees. The American Recovery and Reinvestment Act, or the stimulus package, has allocated billions to renewable energy, and biomass is one of the key focus areas. By leveraging these grant, loan guarantee and tax incentive programs, as described in the table on page 55, it is possible to get a well-planned and organized biomass project funded today. These government programs will bridge the gap in funding biomass projects until the industry matures and traditional capital becomes available.

The stages that projects go through in the financing life cycle and the types of capital available at each stage are shown in the project finance continuum table.

Predevelopment Capital

The first phase in the life cycle of a project is predevelopment. Predevelopment capital or risk capital is the first dollar amount raised for a project and, in the overall scope of the project, is relatively small. These dollars are used to determine the feasibility of the project. This can be the toughest to find or the easiest. If the founders have capital, are well-connected locally and/or the project has strong appeal locally, bringing in local investors can be less difficult.

Project Development Continuum of Capital

Type of Capital	Stage of Project Development: Pre-Development	Pre-Development	Construction	Permanent Financing/ Operations
Equity	Friends & Family Angels Grants – Fed & State	Friends & Family Angels Grants – Fed & State Strategic Partners	Grants Private Equity Strategic Partners	Grants Tax Equity Private Equity Strategic Partners
Debt			Construction Loan Traditional Bank Loan Bank Loan Guaranteed by USDA/DOE Equipment Leasing	Permanent Mortgage Traditional Bank Loan Guaranteed Bank Loan Bonds Line of Credit
Other			State Incentives – Matching Funds for Infrastructure	State Incentives – Workforce Training
Risk →		High	Low	
Availability of Capital →		Low	High	

Development Capital
Development capital is used for business planning, land acquisition, engineering, contracting with vendors and contractors, etc. The same attributes that bring in predevelopment capital can make raising development capital easier. Most project developers find it very difficult to raise development capital as the dollar amount is larger (up to several million dollars depending on the size of the project) and the risk is still high. In stronger economic times, investors and agricultural producers were willing to fund renewable energy development efforts locally. Friends, family and local/regional angel investors are still the most viable capital alternative at this point in the development cycle. Strategic investors with a reason to invest such as off-take or supply arrangements are worth pursuing as well.

With the amount of federal dollars available under the Farm Bill, Energy Bill and stimulus bill, grants are worth pursuing to fund predevelopment and development tasks. Federal grants that are available to renewable energy projects include Section 9008 grants (joint USDA and U.S. DOE) for advanced biofuels (noncorn cellulose) research and development, and demonstration plants. The deadline for the initial round for these grants has passed, but it is expected that additional grants will be announced this year.

Other DOE and USDA grants, such as biomass research and development, Renewable Energy for America Program grants and value-added producer grants, have been or will be announced. It is important to monitor funding announcements at www.grants.gov and state programs at http://www.dsireusa.org.

Project Debt Financing
Once the development equity has been raised, the next step is to find debt financing. One of the best alternatives in today's market is to pursue federal government guaranteed loans. There are many programs that provide government guaranteed loans through the Farm Bill, Energy Bill and the American Recovery and Reinvestment Act. The U.S. government, through various agencies, provides the underlying guarantee; but loans are made by private commercial lenders. The lender must underwrite the loan and present it to the government agency for its approval to provide the guarantee. Lenders set the terms but must work within program parameters. The process can be tedious and time consuming, but a limited number of lenders understand and are willing to work with these programs. Feasibility studies are generally required for all government loan programs.

The government guarantees do not become effective until the project is complete and in operation; therefore, a construction loan must be procured.

The major loan guarantee programs available for biomass projects are as follows:

›USDA Business & Industry Guaranteed Loans (B&I Loans)
http://www.rurdev.usda.gov/rbs/busp/b&i_gar.htm

›USDA Renewable Energy for America Program (REAP) Guaranteed Loans
http://www.rurdev.usda.gov/rbs/busp/9006loan.htm

›Biorefinery Assistance Program http://www.rurdev.usda.gov/rbs/busp/baplg9003.htm

›DOE Innovative Technology Loan Guarantee Program
http://www.lgprogram.energy.gov/features.html

The USDA B&I program has been around for many years and is well established. The purpose of both B&I and REAP loans is to assist farmer/producer owned and rural small businesses. Both loan programs require that the project be situated in a rural location—under 50,000 in population. The guarantees are on loans up to $25 million, and cover 60 percent to 85 percent of the loan amount depending on the size of the loan. Minimum tangible equity of 20 percent to 40 percent of the project cost is required, depending on the project. Renewable energy is an area of interest for REAP loans. The B&I loans program is funded and available now, and REAP funding announcements are expected at any time.

The Biorefinery Assistance Program, also known as Section 9003 of the 2008 Farm Bill, focuses on advanced biofuels. Funds must be used to build or retrofit commercial-scale biorefineries to produce advanced biofuels (noncorn cellulose). The technology must be established or demonstrated as a viable commercial technology. The guarantees are for qualifying loans up to $250 million, not to exceed 80 percent of project costs. The current deadline for the second half of 2009 was April 30, and the next funding announcement for 2010 was expected in the fourth quarter of this year.

The DOE Innovative Technology Loan Guarantee Program totals $6 billion. The government wants rapid deployment and is expected to announce the application process in May/June 2009. The loan program will provide loan guarantees for renewable technologies and transmission technologies. The goal is to encourage early commercial use of innovative technologies in energy projects and to achieve substantial environmental benefits (reducing greenhouse gas emissions). The DOE can guarantee up to 100 percent of a loan as long as the loan does not exceed 80 percent of project costs, but DOE prefers lower guarantee amounts.

Other Federal Programs
Other programs applicable to biomass developers worth monitoring and exploring include:

›Section 9004: RePowering Assistance—to encourage existing biorefineries to replace fossil fuel used during production

›Section 9005: Bioenergy Program for Advanced Biofuels—provides payments to ag producers to support and ensure expanding production of advanced biofuels

›Section 9009: Rural Self-Sufficiency Initiative—provides funding to enable rural communities to increase energy self-sufficiency (uncertain program timing/funding)

›Section 9011: Biomass Crop Assistance Program—provides support to establish and produce crops for conversion to bioenergy and to help with collection, harvest and storage

›Section 9012: Forest Biomass for Energy—to support research and development to facilitate use of forest biomass for energy-related applications

Project Equity Financing
In conjunction with the senior debt, which can range from 50 percent to 70 percent of the project cost, depending on the lender and the guarantees, if any, sufficient equity must be raised the options for equity today are local investors, strategic partners, equity funds (not very likely) and tax equity. The ability for biomass-to-electricity companies to claim investment tax credits, production tax credits, bonus depreciation and accelerated depreciation opens up the door for tax equity investors. The tax equity market has shrunk significantly in the past few years due to the economic environment. As a result of this situation, a new program under ARRA has made it possible to get a grant from the federal government in lieu of the 30 percent investment tax credit for certain biomass projects. These grants are issued within 60 days of project completion. The grant details have not yet been released but are expected soon. With this grant, local equity and a loan guarantee, more project developers will be able to successfully fund their biomass projects.

Another tax driven option is New Market Tax Credits. This federal program has been in existence for several years and funding was increased this year. It is difficult to meet the requirements but is worth the effort as the capital is treated as subordinated debt or equity. The first hurdle is that the project must be in a qualifying census tract that is distressed and being in a rural area is a positive. The census tract must be low income or with high net migration of population. Economic development and job creation are needed to qualify.

The investor invests 20 percent to 25 percent of the project cost and gets tax credits against federal taxes (39 percent) over seven years instead of getting his capital returned
from the project. The interest rates and fees on new market capital are 2 percent to 4 percent per year with no amortization. The structure is complicated and it is difficult to find lenders that can work within the structure. The project size that works best is in the $10 million to $40 million total cost range.

Conclusion

In today's capital markets, there is scarce private capital beyond the developer's own seed capital, making it a difficult environment in which to start and fund a new project. That being said, the emphasis on renewable energy in this country has never been greater and biomass is a high priority. Government is leading the way in encouraging new biomass projects, and grant and loan programs are being announced on a continuous basis. There are many requirements and procedures to navigate, and it can take a long time but is worth the effort if your project qualifies. The right business plan, the right partners and a realistic capital structure significantly improve the odds for success.

Sue Wyka is a partner at Ascendant Partners Inc. and Ascendant Financial Partners LLC. Reach her at swyka@ascendantfp.com or (303) 221-4700.