

# Combined Heat & Power FACTSHEET

## Understanding the Lenders' Criteria for Financing

### Introduction

Energy projects are now commonly financed through the use of non-recourse loans. Such loans, unlike conventional loans that provide the financial institution with some collateral or guaranteed source of repayment unrelated to project proceeds, are secured only by project collateral and cash flow. Because most energy projects have very little salvage value, the loans are, in fact, backed only by a collection of contingencies. Because of this, the financial institution will want strong assurances that the project can be built, that it can and will be built in a timely and cost effective manner, that fuel supplies and price are reasonable, that operation and maintenance are professionally handled, that power and thermal sales are advantageous to the project and that environmental and regulatory risks are minimal.

### Regulatory Risk

Regulatory risks can be divided into three main types: facility siting, environmental regulation, and utility law.

Siting energy plants in urban or even suburban areas is becoming more and more of a challenge and most facilities will face some level of “not in my backyard” opposition.

Environmental laws, including the federal Environmental Protection Act, the Clean Air Act, the Water Pollutants Control Act and the Endangered Species Act, may all impact project site selection and most surely both capital and operational costs.

Utility laws are also having a major impact on project economics, especially in the case of independent power producers or developers of merchant power plants. It is essential that developers know exactly which laws and regulations apply to their project so as to be able to determine the cost of compliance and the economic effect on the viability of the project. Similarly, financial institutions backing energy project development must be assured that all regulatory hurdles can be cleared and often refer to the need for legal review of all project permits and licenses to minimum regulatory risk. Assuring minimum regulatory risk is now a prerequisite for obtaining non-recourse financing.

### Power or Thermal Sales Contracts

A valid sales contract covering power and/or thermal output is a must for all projects. General contract terms should reflect a willingness on the part of both parties to follow through on the agreement. Contracts negotiated with either side being disadvantaged causes concern to financiers. Contract milestones or expiration dates must be reasonable. Construction deadlines must be attainable. Financiers are wary that if the developer is held to too short a completion date, that shortcuts with a high potential for problems will be the result.

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The sales contract is critical to reducing downside risk. Rates to be paid and terms will be examined for consistency with prevailing market prices and rates allowable by regulators. Contracts must not contain "regulatory out" clauses i.e. conditions allowing future tampering with the contract by government regulators.

Financiers require that the parties be bound to the contract since non-recourse financed projects depend entirely on a reasonable sales agreement to secure financing.

## Developer Qualifications

Considerable experience in developing energy projects, or ability to provide equity, or both are important developer attributes.

Contracts negotiated by the developer must be seen as advantageous to the project partners. Developers should have experience negotiating construction contracts and managing major projects to make financiers comfortable. The terms of the sales agreements mentioned above reflect the developer's ability to perform.

Motivated developers with expertise in a particular area e.g. Combined Heat and Power (CHP) are optimal.

## Engineering

Experienced, big name consulting engineering firms are preferred by all financing entities. The firm should ideally be familiar with the technology to be employed and be able to specify equipment to maximize capacity, availability, and optimize efficiency.

## Equipment

Equipment should have a proven track record in similar applications.

Performance warranties for critical system components of the entire power drain are optimal. Component warranties are negotiated with the manufacturer by the developer. High system performance i.e. capacity and availability can be accomplished through redundancy of critical equipment, to help ensure that financial obligations can be met.

## Construction

Well-recognized major construction companies with a proven track record in successfully constructing similar projects in similar settings will greatly increase the confidence level of financiers. Although this is true of all

aspects of project development, it is especially true with regard to construction companies.

Construction contracts should be fixed price. Tight construction contract clauses are required by financiers to hold contractors to their obligations. Developer experience and proven success in negotiating such contracts is important. Completion guarantees with formulas for rectifying any problems are optimal and preferred by the financial community.

## Operation and Maintenance

As new independent power plants have entered the market, real electricity prices have leveled off resulting in slimmer margins for profits and making O&M costs all the more critical. Developers are joining with partners and financiers in developing new energy projects. Plant operation costs therefore get close review by more parties.

Because contracting O&M to an experienced, known company can result in slightly lower financing costs, many developers are willing to contract plant O&M to third parties strictly for financial reasons. However, O&M is the key to an adequate income stream to meet financial responsibilities, to meet contract terms, and to ensure the availability of future sources of funding for new projects.

Good O&M goes well beyond meeting payment schedules and maximizing current profits. Because of this, incentive and penalty clauses have found their way into O&M contracts. For example, when seasonal rates or even time of day rates are paid for plant output, it is imperative that the facility operates well during those periods. A bonus for good operation, tied with a penalty for not meeting minimum performance requirements helps ensure optimal performance and a strong, positive cash flow – a critical criteria of all financial institutions.

Visit the following website for more information:  
<http://www.energy.gov/> or <http://search.ornl.gov/>

Other Combined Heat and Power publications available at:  
<http://www.energy.wsu.edu/publications.html>

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