

## Considerations in Developing Renewable Energy Projects

We hope you enjoy this newsletter. Autry, Horton & Cole, LLP's construction law group, headed by George C. Reid, has many years of experience in resolving construction disputes. We provide our clients advice in minimizing the likelihood of claims and in negotiating effective contract documents to protect clients' interests in the event of such claims. In addition to litigating, mediating, and arbitrating construction disputes, our firm specializes in the business of construction, including asset protection, succession planning, and tax planning. We have advised clients ranging from national construction firms to small local subcontractors on a broad array of issues.

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### INTRODUCTION

The demand for energy by retail and industrial customers will continue to grow in the coming years. According to the U.S. Energy Information Administration, consumption of energy will rise at an average annual growth rate of 5% over the next twenty-five years. Energy investors and developers should find this trend very exciting and enticing. To add to the excitement, both federal and state governments have provided financial incentives for developing renewable energy projects. Recognizing the potential of solid profits for investors, developers, contractors, and other project participants, this newsletter edition is devoted to the development of renewable energy projects.

### CONSIDERATIONS IN DEVELOPING A RENEWABLE ENERGY PROJECT

While not all renewable energy projects involve multi-billion-dollar investments or mega-construction firms, most will require substantial sums of money, and all will involve substantial risk that must be managed. Project participants should identify these risks and find ways to avoid, mitigate, or allocate them among the parties, including investors,

lenders, developers, contractors, subcontractors, manufacturers, architects, engineers, and consultants. Projects typically involve risks and considerations associated with power and fuel pricing, regulatory and environmental aspects, financing, and construction. These risks, and the contractual means of managing such risks, are discussed below.

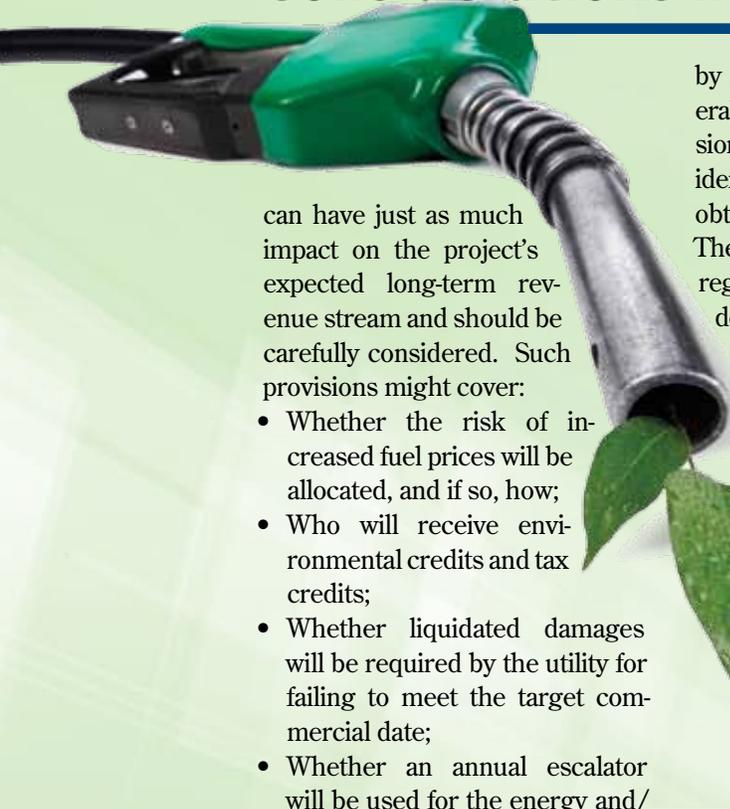
### Pricing Considerations

The revenue associated with a renewable energy project is a primary consideration for the developer and its investors and lenders. A developer will typically negotiate a power purchase agreement ("PPA") with an electric utility or industrial owner. Although certainly the rates paid for energy and/or capacity from the project are important, other provisions

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can have just as much impact on the project's expected long-term revenue stream and should be carefully considered. Such provisions might cover:

- Whether the risk of increased fuel prices will be allocated, and if so, how;
- Who will receive environmental credits and tax credits;
- Whether liquidated damages will be required by the utility for failing to meet the target commercial date;
- Whether an annual escalator will be used for the energy and/or capacity rate; and
- Whether changes in costs due to changes in law will be passed to the utility.

These are important considerations, among others, that should be addressed before moving forward to the next phase of the project.

## Regulatory and Environmental Considerations

Regulatory and environmental considerations are especially important in developing renewable energy projects. The agreements among the parties must address both the risks and incentives arising from the regulatory and environmental aspects. For example, the construction contract between the developer and the contractor should identify which party is responsible for procuring the environmental permits (e.g., water, air, land disturbance, etc.). Further, if the PPA is subject to regulation

by a state agency and/or the Federal Energy Regulatory Commission, the parties' contracts should identify the party responsible for obtaining the requisite approvals. The failure to procure permits and regulatory approvals can sound the death knell for a project, so the associated risk and responsibility must be clearly established.

Renewable energy projects often give rise to financial incentives for one or more of the project participants. The parties' contracts should identify which party is entitled to the benefit of these incentives. For example, the tax code provides for a number of tax credits and grants for the development of a renewable energy plant and the generation of renewable energy.

## READ MORE ABOUT ENERGY TAX CREDITS

- "Tax Credits Available to Energy Investors," Power Engineering E-Newsletter, July 22, 2008, available at <http://bit.ly/aoRq2A> and <https://www.box.net/shared/p6a5fajxcm>.
- "Energy Tax Credits," PennEnergy, available at <http://bit.ly/d2c6Mu> and <https://www.box.net/shared/xyt68lllb>.

Additionally, some states have implemented renewable energy portfolio standards that yield renewable energy credits ("RECs") for the generation of renewable energy. Even in states without such standards, environmental credits can be obtained and still have value to the parties with the

potential for increased value in the future. The contracts should clearly address which party is entitled to receive RECs.

## Financing Considerations

A project's viability may ultimately depend on the parties' ability to obtain and retain financing. Typically, projects are funded by both equity investors and third-party lenders. Negotiations with investors and lenders will usually dictate the terms of most contracts and substantially affect the structure of the project's risks and rewards among the project participants. The key to a successful project thus requires successful negotiation with lenders and investors. Developers must consider the reliability of the funding and should restrict when the lender may withhold such funding. The last thing a developer or contractor needs is to partially complete a project when the credit dries up. To avoid such a problem, developers and contractors should iron out all foreseeable contingencies with the lender before committing any work on the project.

Both state and federal governments provide an array of incentives to developers of renewable energy projects in the form of grants, loan guaranties, tax credits, and tax-favored bonds. Additionally, agencies like the Rural Utilities Service of the U.S. Department of Agriculture can offer assistance, including grants, guaranties, and loans. Developers must seek out and take advantage of all available state and federal assistance.

## Construction Contract

Contractors familiar with energy projects are well aware that energy

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construction is not an exact science. This is especially true in the renewable energy field. Planning for these problems before they occur is the most effective strategy for dealing with them. Construction risks may include, for example, fluctuation in cost of materials; bid busts; defective or incomplete design; labor strikes; delays caused by manufacturers, suppliers, or bad weather; and failure to perform. Each of these risks must be addressed in the construction contract. The following are additional considerations that usually arise in renewable energy construction contracts.

## **Project Delivery**

In the process of managing construction risk, one of the initial considerations is the project's delivery method. The delivery method plays a crucial part in allocating risk and responsibility for the many risks of a construction project. For example, some project developers seek to shift all construction-related risk to a single third party, instead of separately contracting with contractors, engineers, consultants, and construction managers. To accomplish this objective, the developer will enter into an engineering, procurement, and construction ("EPC") contract, or turn-key contract, under which a single entity will perform or procure all tasks necessary to install a functioning renewable energy project.

Other delivery methods include design-bid-build and prime contracting. In the design-bid-build approach, the developer typically contracts first with a design team

that develops the scope and specifications for the project. Contractors submit bids based upon the design documents, and then the developer separately contracts with the successful bidder. In the prime contracting approach, the developer contracts separately with multiple contractors which specialize in certain aspects of construction. In contrast to an EPC contract, which requires little oversight by the developer, the design-bid-build and multiple prime contract approaches require more involvement of (and therefore more risk to) the developer. Each of these delivery methods comes with its own set of advantages and disadvantages that must be identified and addressed during the contracting phase.

## **Price Variation**

Because renewable energy projects involve heavy construction, the parties must consider the risk of variation in price of materials and components. Extreme variations in pricing can make or break a project for the contractor. Accordingly, the parties might consider specifically addressing who will bear the burden of such price variations through the construction contract. For example, if the contractor seeks to minimize the risk of increased steel prices, it could negotiate a benchmark price and share the upside risk (and possibly downside reward) of the variation with the developer. If the developer assumes some price-variation risk, it may negotiate to pass along such risk to the power purchaser through the PPA.

## **Performance Standards**

Even when the construction phase ends, the project is usually not over for an energy contractor. Many contracts impose performance standards to be tested upon completion or at various stages throughout construction. The contract may establish a maximum allowable variation in expected output, reliability, emissions, and vibration. For example, a construction contract may state that, over a certain amount of time, the project must be able to generate a set number of kilowatts, plus or minus a percentage threshold. As for certain types of renewable energy, such as solar or wind, performance standards should take into account the less-reliable nature of such energy. And finally, if the contract includes performance standards, it should also address the consequences for failing to attain the standard, including, for instance, liquidated damages.

## **CONCLUSION**

The construction of energy projects will likely grow in step with the increase in U.S. demand for energy and, in particular, for renewable energy. While renewable energy projects can provide very reliable profits for each of the project participants, they can also involve harsh risks for the unprepared. Accordingly, investors, developers, contractors, and utilities or other power purchasers need to contractually address the risks and rewards early in the development process.

<sup>1</sup> U.S. Energy Information Administration, Independent Statistics and Analysis, Year-by-Year Reference Case Tables (2008-2035).

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### Attorney Profile

If you need an experienced mediator to mediate a real estate, construction or other commercial dispute, you may want to consider **George Reid**, Of Counsel to Autry Horton & Cole. For more than three decades, George has concentrated his law practice in the area of complex construction and commercial litigation. During the last fifteen years, George has mediated hundreds of complex disputes and has developed a reputation as one of the Southeast's "go to" mediators when the issues are difficult and the stakes are large. For more information about George Reid and his mediation practice, visit George's profile on Autry Horton & Cole's website and click on the link to "The Reid Firm."