Electric utilities in the U.S. historically have been buyers and sellers, but not producers, of renewable energy. Largely due to tax and accounting constraints, vertically integrated, regulated utilities traditionally have entered into power purchase agreements (PPAs) to procure solar, wind and other renewable energy from independent power producers (IPPs) rather than building such projects and including them in their rate base. To many utilities, this has seemed like a lost opportunity, as they generally earn a return on the equity invested in power plants, transmission and distribution lines, but not on power purchased from others.

Increasingly, however, dramatic reductions in the installed cost of solar panels and wind turbines, and the looming expiration of federal tax benefits for renewable energy, have led to a new openness to utility-owned generation. A spate of build-transfer transactions — where the utility hires a third-party project developer to develop and construct a project, transferring ownership to the utility at completion — is creating new opportunities and challenges for developers, utilities and equipment suppliers alike.

**Challenges for Utility Ownership**

Renewable energy in the United States is heavily supported by federal income tax incentives, including production tax credits (PTCs) for wind, investment tax credits (ITCs) for solar or wind, and accelerated depreciation for both. Such benefits can account for nearly half of the capital cost of a renewable energy project. IPPs usually are more efficient users of tax incentives, able to monetize such benefits early by partnering with a tax equity investor. This lowers the IPP’s cost of capital, reducing production costs. Regulated utilities, however, may be required to spread such tax benefits out over the life of the asset under “normalization” rules and other utility tax and accounting requirements. Because they can’t use the tax benefits upfront, regulated utilities have been at a competitive disadvantage.

In addition, until very recently renewable energy has been more expensive than traditional sources of power such as coal, natural gas and nuclear. Dramatic price declines for solar and wind — caused by expanded production capacity, more efficient technology and faster installation methods — have encouraged a number of utilities and state regulatory commissions to take a second look.

Even after applying normalization rules and other tax and accounting constraints, direct ownership of renewable energy projects often can be an attractive alternative in the current market. Moreover, some utilities with limited tax appetite are co-investing with a tax equity investor, often combining such structures with a build-transfer arrangement.

**Build-Transfer Agreements**

A build-transfer agreement (BTA) is a hybrid between an acquisition agreement and a construction contract. The developer secures the needed land rights, permits, interconnection rights and project contracts. When the project is “shovel ready,” the developer (or its contractor) builds the project for the utility. For wind or other projects using PTCs, the utility generally takes ownership when the project has been fully tested and commissioned and starts commercial operation — or has been “placed in service” for federal tax purposes. For solar and wind projects using ITCs, ownership transfers just before the project is placed in service. Thereafter, the project may be operated and maintained by the utility, the original developer or a third party.
BTAs are fairly common for state-owned utilities outside the United States but are seen less frequently in the U.S., and both developers and utilities have encountered challenges implementing the structure. However, some common themes have emerged from recent transactions.

First, obtaining necessary state regulatory approvals may take as much as a year, or longer. While some utilities may seek to acquire fully developed projects, agreeing in advance to a detailed scope of work and equipment specification, others may be more comfortable with a less structured arrangement allowing such matters to be worked out in a co-development process while pursuing regulatory approvals. To optimize timing, the BTA may be signed before the project is fully developed, leaving certain features of the project to be defined later. The interconnection process, final site studies, final equipment selection, environmental permitting and land-use approvals thus may run in parallel with the regulatory approval process.

In such cases, the utility may seek to protect its interests — and those of its ratepayers — with cost caps or target-price contracts, pre-agreed standards (or approval rights) for remaining development tasks, and baseline functional specifications for plant equipment and performance. These provisions are in addition to traditional features of an acquisition agreement or construction contract, such as delay liquidated damages, performance tests, an extensive set of representations and warranties, and detailed closing conditions.

The lengthy regulatory approval process can create its own challenges for developers. To maintain price and schedule — and to meet Internal Revenue Service tests for “commencement of construction” in order to qualify for the maximum ITC or PTC — the developer may need to make early deposits to equipment vendors. The developer may seek compensation for going at risk for these amounts, for instance through a signing payment or a termination fee for a busted deal, or through progress payments during the course of construction.

These requests create countervailing pressures from the utility, which must decide how much it can put at risk to preserve the project timeline and how to mitigate such risks if the project is canceled or unexpected hitches arise in development or construction. The recent disapproval by state regulators of a high-profile wind and transmission build-transfer project has only highlighted these risks and the need for careful planning and risk mitigation for both utilities and developers.

In a variation on this structure, the utility may agree to buy the developed project when it is shovel-ready, with required permits and land rights in hand, after obtaining state regulatory approvals but before construction begins. The developer would construct the project under a more classic engineering, procurement and construction (EPC) contract. Depending on contract terms, this can shift some construction risk to the utility, because it pays for the project upfront in the acquisition price and through milestone payments under the EPC contract, rather than after the project has been completed. Some utilities, however, may prefer being an owner under a typical EPC arrangement, with the right to step in or terminate the contract and hire a new contractor should the original developer default.

### Tax Equity Investments in Utility-Owned Generation

In the typical BTA, the utility becomes the owner of the project for tax purposes and claims the PTC or ITC and accelerated depreciation. This may make economic sense, notwithstanding requirements to stretch out the tax benefits through normalization or other rate recovery principles. Some utilities, however, have recently structured transactions where the utility brings in a tax equity investor as a partner in a special-purpose project company. The investor is allocated a disproportionate share of tax benefits, and some agreed portion of the cash flow, in return for its upfront capital contribution. This contribution pays part of the cost of acquiring the project, reducing the cost to the utility and its customers. When the tax equity investor reaches an agreed target return, the utility has the option to buy out the investor, becoming the sole owner of the project.

The rules governing tax equity investments are complex and frequently at odds with the utility’s other objectives, so care must be taken to assure compliance with both tax requirements (including normalization rules and rules disallowing losses for certain related-party sales) and other regulatory requirements. For example, certain structures may implicate federal or state rules governing transactions between regulated utilities and their affiliates. In addition, approval of the Federal Energy Regulatory Commission, with its concomitant market power review, may be required if a project is to be transferred after it starts delivering electricity to the grid.

### Implications

Increased utility ownership of renewable energy projects may have broad implications for the renewable energy market in those parts of the country where vertically integrated utilities continue to own generating fleets to serve their customers. Renewable energy developers may face the paradox of more direct competition from regulated utilities and fewer opportunities for PPAs, but a larger pool of potential credit-worthy buyers of their projects. The end result may be more renewable energy deployed — but under different ownership structures, with different challenges, risks and rewards for the players.