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Tax Aspects of Renewable Energy Transactions: Renewable Investment Incentives, Transaction Structures, and Tax Matters

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Intended to promote production of energy from renewable energy resources, renewable energy tax credit programs provide a variety of federal and state subsidies, credits, and incentives to finance the investment and production of renewable energy. These programs provide significant benefits to institutional tax credit investors looking to diversify their tax credit investment portfolios with financially viable and environmentally responsible investments, yet new investors may be deterred by the sometimes-complex tax, accounting, and structuring aspects of these transactions. But by developing a high-level understanding of these transactions — including the incentives, structures, and significant tax issues involved — and, most importantly, utilizing knowledgeable, experienced advisors to help structure and finance the deals, new investors can efficiently optimize the monetization of tax benefits derived from renewable energy projects.

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TAX EQUITY BASICS — ALLOCATED TAX CREDITS

A tax credit is a type of tax incentive that can reduce a company's tax liability on a dollar-for-dollar basis. The U.S. government uses tax credits to incentivize certain types of projects that produce social, economic, or environmental benefits. Common tax credit projects include affordable housing, rehabilitation of historic properties, low-income census tract economic development, wind energy, and solar energy. For these projects, the tax credit is a valuable and important part of the project financing capital stack. Many project developers do not have enough tax liability to take advantage of the tax credits themselves, so the developer monetizes the tax credit by attracting a ''tax equity'' investor.

Tax equity is a term that is used to describe a passive ownership interest in a qualified project, where the investor receives a return based not only on cash flow from the project, but also on tax benefits. In such a transaction, a partnership is often formed among the parties to facilitate injection of investment capital and the allocation of tax credits. The specifics of each partnership vary by project, tax credit type, and transaction structure.

In practice, a tax equity investment uses the same dollars that are earmarked to satisfy a company's estimated tax liability payments. Those funds are repurposed and then invested into qualified projects that generate tax credits, such as a solar farm or affordable housing project. The tax benefit attributes (tax credits and deductions) from the project flow back to the investor, eliminating a corresponding amount of tax liability. The investor typically also receives cash returns from the project for participating, thus earning the investor a rate of return on the same money that otherwise would have been wired to the government with no expectation for a return.

Returns on tax credit investments can vary widely depending on the program, the counterparties, and all standard risk factors associated with real estate or energy project underwriting. Generally speaking, after-tax returns to investors usually fall between five percent and 18% depending on the credit quality and other project risk characteristics — e.g., low-income housing tax credit (LIHTC) projects tend to fall on the lower end of the yield scale (for various reasons beyond the scope of this article), while utility-scale renewable energy projects fall in the middle and mid-to small-scale renewable energy projects drive the top of the yield scale.

FEDERAL TAX INCENTIVES FOR RENEWABLE ENERGY INVESTMENTS

Renewable energy projects may qualify for two types of tax credit and depreciation incentives at the federal level:

Investment Tax Credit — investors can take a tax credit equal to 26% of their basis in a new qualifying energy system.[1] The ITC was enacted to serve as an incentive to stimulate the purchase or modernization of certain kinds of productive assets by permitting a reduction in tax liability based on the taxpayer's qualified investment in certain kinds of property placed in service during the tax year.

Production Tax Credit — the PTC is a per-kilowatt-hour tax credit for electricity generated by qualified energy resources. The credit is available for a 10-year period beginning on the date the facility was originally placed in service.[2]

Bonus Depreciation — under the 2017 tax reform, discussed in greater detail below, ''qualified property'' that is acquired and placed in service after September 27, 2017, and before January 1, 2023, is eligible for 100% bonus depreciation.[3]

Accelerated MACRS Depreciation — businesses can depreciate renewable energy systems using a five-year schedule (even though the useful life of a solar system is 30-35 years).

OTHER RENEWABLE ENERGY INVESTMENT FINANCIAL INCENTIVES

Additional programs are offered at the state, municipal, and utility levels in order to further incentivize local renewable energy investment.

Some states offer an additional tax credit, which usually ''stack'' with the federal ITC, meaning both state and federal tax credits apply to the full cost of installation. Some states, utility companies, and municipalities offer cash rebates for solar installations, which may further offset the costs of installation but tend to reduce the return on federal/state ITCs because the rebate is applied first to the installation cost before filing.

Certain states also have renewable portfolio standards for utilities, requiring power companies to either produce or purchase energy from renewable sources like solar power. In these states, utilities often use solar renewable energy credit (SREC) marketplaces to purchase solar power credits produced by homeowners who generate renewable energy, allowing for the sale of these credits to increase solar system income substantially, thereby reducing the time it takes for the system to offset the cost of installation.

Non-Financial Benefits to Investing in ITC Projects

Investing in clean energy can have significant, wide-ranging benefits to a company from a public relations and global perspective.

Most renewable energy generation produces little to no global warming emissions nor emits air and water pollution akin to that associated with traditional energy production — wind, solar, and hydroelectric systems generate electricity with no associated air pollution emissions, and the air pollutants emitted by geothermal and biomass systems are generally much lower than those of coal-and natural gas-fired power plants. Further, wind and solar energy require essentially no water to operate and thus do not pollute water resources or strain supplies by competing with agriculture, drinking water, or other important water needs. In addition, the water required for cooling at biomass and geothermal power plants would be reduced significantly in a future with high renewables.

Renewable energy sources are also essentially inexhaustible, so while a relatively small fraction of U.S. electricity currently comes from these sources, studies have repeatedly shown that renewable energy can provide a significant share of future electricity needs, even after accounting for potential constraints.[4]

The renewable energy industry also offers employment and other economic benefits. The industry is labor intensive, which means overall job creation and potential for technology-driven higher-skilled, higher-wage opportunities. Renewable energy can also benefit local governments through property and income taxes and other payments from renewable energy project owners and create value for property owners (especially farmers and rural landowners) in the form of lease payments and royalties. Furthermore, while renewable facilities require up-front investments to build, they can then operate at very low cost and thus can help stabilize energy prices in the future.

RENEWABLE ENERGY TRANSACTION STRUCTURES

In order to fully use the various federal tax incentives available for renewable energy projects and thus achieve a low cost of capital necessary for competitiveness in the energy industry, developers partner with tax equity investors via various financing structures.[5] Multiple monetization structures are employed to finance renewable energy projects. Sale-leasebacks, partnership flips, and lease pass-throughs (also re-

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[1] For facilities that start construction in 2021 or 2022, the ITC remains at 26%; the ITC steps down to 22% for 2023 construction start, and steps down further to 10% for projects beginning construction in 2024 or later.

[2] §45. All section references herein are to the Internal Revenue Code of 1986, as amended (the ''Code''), or the Treasury regulations promulgated thereunder, unless otherwise indicated.

[3] §168(k) (as modified by the Tax Cuts & Jobs Act of 2017 (TCJA), Pub. L. No. 115-97, §12001(b)(13), §13201, §13204).

[4] U.S. Department of Energy, *National Renewable Energy Laboratory, Renewable Electricity Futures Study* (2012).

[5] §39. Even if they cannot be monetized currently, tax incentives can be valuable by using the applicable one-year carryback/20-year carryover period.

ISSN 0148-8295

ferred to as inverted leases) are the primary financing arrangements, as detailed below.

Partnership Flip (Most Common)

Tax equity investor funds a percentage of total project costs and receives a pro rata percentage (or other specified allocation) of cash and tax benefits, including the ITCs, prior to a designated flip in allocation:

- Investor must possess sufficient taxable income to use tax benefits (both tax credits and accelerated MACRS tax depreciation equity).
- Investor is typically allocated 99% of tax credits and a share (usually disproportionate) of taxable losses/income and distributable cash.
- *Developer/sponsor*: ROI earned through cash flows, minimum one percent allocation of tax benefits and long-term ownership.
- *Flip timing*: under a ''time-contingent'' partnership flip (also known as a fixed flip), the flip occurs at the end a certain period of time (typically five years) regardless of investor return; under a ''yield-contingent flip,'' the flip is not fixed on a given year, but rather occurs when the tax equity investor has achieved a predetermined target internal rate of return (IRR).
- Investor typically exits the project after the flip when the Sponsor exercises a purchase option on the Tax Investor's residual interest, or when the Investor exercises a sale option to sell their residual interest back to the Sponsor.
- A target investment time period is set for the yield-contingent partnership flip (typically approximately seven years), and is used to determine the investor's equity contribution; the equity amount is set such that the present value of cash flows will yield the target IRR over the target investment period.
- In some ITC-based structures utilizing the fixed flip mechanism, the tax equity investor's equity contribution is a multiple of their tax credit size, known as the ''syndication rate.''

Discrepancy between equity injection and cash flow split: in a typical partnership flip model employed in the industry, the tax equity investor invests approximately half (or more) of the initial equity, but this contribution does not match the cash flow distribution:

- In a fixed flip scenario, the investor typically retains a two percent ''preferred yield,'' or the yield on the upfront investment vehicle which the investor receives each year, drawn from the initial stream of cash flows.
- In the case of a yield contingent flip, the investor typically retains over 35% of the initial stream of cash flows prior to the flip date.
- Discrepancies between equity contribution and cash-flow allocation are common in other types of structures as well, which is partially justified by the fact that ITC/PTCs, MACRs incentives, and loss allocations are also part of the benefit calculation, and cash-flow allocations often switch midway through the project lifetime.
- *Debt*: fixed partnership flips are sometimes leveraged at the project level, while yield contingent flips are typically back-leveraged.

Partnership Flip Tax Issues/Considerations

Partnership flip with PTC: in order to claim the §45, PTC, the taxpayer must be the owner of the assets and the producer of the electricity; leasing structures are not available (except for biomass), but the partnership can be both owner and producer — partnership special allocation rules are used to specially allocate the incentives to an investor. Under this scenario the taxpayer:

- Must assure that the partnership owns the assets and the partners own their interests for tax investor to be deemed valid partner.[6] Ownership structure and allocations must be respected for federal income tax purposes.
- No recapture provisions or limitations on PTC to tax exempt or foreign investors (must be a U.S. investment project to qualify for PTC).
- Depreciation limitations — MACRS may be limited if tax exempt ownership in structure.

Partnership flip with ITC: in general, the same basic concepts apply as PTC flip structures — partnering prior to commercial operation date is required; ownership structure and allocations must be respected for federal income tax purposes, but no safe harbors apply[7]. In this situation:

- Recapture of ITC during first five years vests 20% per year.
- Potential limitation of ITC if tax exempt ownership in structure: although relatively infrequent, deal by deal consideration and potential impacts of blocker corporations.
- Basis reduction: depreciable (inside) basis must be reduced by 50% of the ITC benefit; outside basis of partnership interest must be reduced by the same amount.

Sale-Leaseback

As its name implies, the sale-leaseback structure involves the developer of a project selling it to a tax eq-

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[6] *See* Rev. Proc. 2007-65 (safe harbor applicable to wind PTC partnership flips); *see also Historic Boardwalk Hall, LLC v. Commissioner,* 694 F.3d 425 (3d Cir. 2012); Rev. Proc. 2014-12 (tax investor must have enough upside and downside to be the tax-law owner; cash-on-cash return issues).

[7] IRS released CCA 201524024 (June 12, 2015) (stating Rev. Proc. 2007-65 does not apply to ITC deals).

ISSN 0148-8295

uity investor, who simultaneously leases it back to the developer. The tax equity investor's basis for tax credit and depreciation is the purchase price paid to acquire the project (often allowing for 15%-20% step-up in basis over the construction cost of the project).

This is the only transaction structure in which the tax equity investor does not need to be in the deal when the project goes online. There is a special rule that permits the tax equity investor to still claim the tax benefits if the sale-leaseback transaction happens within 90 days of the project being placed in service.

In a relatively rarely used variation of the sale-leaseback, known as a leveraged lease, construction is funded by sponsor equity and a construction loan and once constructed, the sponsor sells the project to a partnership formed by the investors and immediately leases it back. In the execution of the leveraged lease:

- The developer repays the construction loan from the sale proceeds, and the trust is financed with cash equity and non-recourse term debt.
- Lease payments are then likely to be assigned to a lender (for tax purposes, a minimum of 20% equity is usually required), and leasing generates ''time value of money'' cost saving achieved by deferring tax payments and improves cash flow.

Sale-leaseback Tax Issues/Considerations

The following points are pertinent sale-leaseback considerations:

- Tax ownership, i.e., characterization as a true lease versus a financing structure (e.g., a loan or a partnership), which involves considerations of substance and form.
- Requirement that the lessor execute the lease within 90 days of the system being in place; tax credit recapture (i.e., all/part of previously claimed credit must be added to tax liability if the property/asset that generated the credit is no longer used by the taxpayer in a qualifying manner).
- IRS rules requiring the business to reduce its basis in the equipment by 50% of the ITC.
- Tax-exempt use property restrictions, which create the potential for a proportionate loss of ITC if a partnership makes nonqualified allocations to tax exempt entity partners — bifurcated ownership means lessee enters into power purchase agreement (PPA) with the tax-exempt entity; ITC can be preserved by putting a blocker entity (C corporation making a §168(h)(6)(F) election) between the tax-exempt entity and the partnership owning the property, although use of an intermediary does complicate the financial and tax deal structure.

Lease Passthrough

Unlike the partnership flip and sale leaseback structures, where the owner of the equipment is entitled to the tax benefits, a special rule for lease passthroughs allows the lessor to pass some or all of the tax benefits on to the lessee. This structure is often used in the residential (rooftop) solar market.

In an ITC lease passthrough structure, the tax credit is sized based on 26% of the FMV of the project, as opposed to 26% of the project's cost. In practice, this often allows the tax credit amount to be increased by 15%-20% as a ''tax free'' event, in the sense that entering a lease is not a taxable event to the developer. In a partnership flip or sale leaseback transaction, a similar step-up in the ITC amount can be achieved, but it would create a taxable event for the developer.

Instead of reducing the depreciable basis of the project by half of the investment tax credit as you would in a partnership flip structure, §50(d) requires the lessee to recognize income (sometimes called ''phantom income'') equal to half the tax credit amount ratably over five years.

There are two types of lease passthroughs: (1) a basic structure in which the developer is the lessor and leases the project to a tax equity investor, and (2) a shared ownership structure in which the tax equity investor is a minority (typically up to 49%) owner of the lessor.

The lessee typically enters into a PPA to sell electricity generated by the project and makes annual lease payments to the owner to cover the project's debt service.

Lease Passthrough Tax Issues/Considerations

The following points are lease passthrough tax issues to consider:

- Tax issues associated with a lease passthrough structure are similar to those associated with sale-leaseback transactions (see above).
- Tax ownership (true lease vs. financing characterization); lease passthrough election; eligible basis (valuation issues); income basis adjustment; partnership allocations; tax credit recapture; and tax-exempt use property limitations.

In sum, each of the various forms of tax equity structure offer certain benefits and disadvantages, thus the respective financial, tax, and accounting positions of the parties in a given deal will dictate the most advantageous structure for the project. All of these structures present some common challenges to renewable energy investing, however, including: a high bar to entry for tax credit investors (high transactional costs, significant expertise required, niche field); a more limited degree of comfort/certainty that a particular tax structure will be respected by the IRS (as compared to LIHTC transactions, which benefit from special rules/clear guidance from the IRS); and, most significantly for the purposes of this article, potential adverse accounting effects without clear guidance on best practices.

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FUNDAMENTAL TAX CONSIDERATIONS/CONSEQUENCES OF RENEWABLE ENERGY INVESTING

When structuring renewable energy transactions, investors and their advisors must address many tax-focused aspects of the deal, e.g., arm's-length transaction requirements for related/affiliated entities; minimum capital requirements and basis requirements; bargain purchase options not being part of the lease/flip terms; etc. In addition, there are also a handful of particular issues that must be considered when arranging project financing and evaluating transaction risk, as detailed below.

Lack of Accounting Guidance

There is no authoritative accounting treatment under U.S. generally accepted accounting principles (GAAP) regarding how incentives received from the government should be characterized in a company's financial statements (e.g., revenue vs. reduction to cost basis of project vs. reduction to expense vs. income tax benefit).

In 2016, the Financial Accounting Standards board (FASB) issued new GAAP that significantly impact accounting for revenues and for leases, which may impact renewable energy projects.

True Leases

Renewable energy projects typically have at least two significant lease accounting matters to address. One is related to the energy sale agreements and the other is related to the land leases that are usually in place as the project assets are often installed on leased land. The reporting for land leases by a renewable energy project will require the same technical analysis that would be required by any operating company. Having these leases respected as true leases is vital for tax ownership purposes, as discussed below.

Long-Term Contracts for the Sale of Electricity

Most renewable energy projects involve the sale of electricity to an offtaker—in most cases, a public utility—under a power purchase agreement (PPA), a long-term contract (usually 10+ years in duration) at a fixed or scheduled price. Whether PPAs are deemed executory contracts or leases significantly impacts their accounting treatment—if considered an executory contract, the payments received from the customers are classified as revenue; whereas if considered a lease, the payments received are classified as rental income and if the company is not in the business of renting property, then the payments are not revenue.

Sale-Leaseback Transactions

Often developers/operators of renewable projects will sell the project, once constructed, to a financial buyer and then lease the asset back for operation. The IRS scrutinizes such lease structures to determine whether it is a ''true lease'' or if there has been a disguised sale analyzing the following factors:

- Economic substance and benefits and burdens ''tests.''[8]
- Some courts have enumerated lists of ''tax ownership'' characteristics.[9]
- Facts and circumstances.[10]
- Rev. Proc. 2001-28: no limited use property; no lessee loans or guarantees; purchases and sale rights; minimum investment ''at risk;'' pre-tax profit.

Asset Retirement Obligations

Asset retirement obligations may be implicated when there are requirements to remove a plant and/or equipment at the end of a contract. Asset retirement costs must be capitalized as part of the related property, plant, or equipment when a liability for an asset retirement obligation is initially recognized.

Changes to the asset retirement obligation resulting from revisions to the timing or the amount of the original estimates shall be recognized as an increase or decrease to the carrying amount of the asset retirement obligation, and the related asset retirement cost capitalized as part of the related property, plant, or equipment.

Only asset retirement obligations that are considered a legal obligation shall be afforded this accounting treatment.

IMPACT OF TAX REFORM ON RETC PROJECTS

The TCJA and Bipartisan-Bicameral Omnibus COVID Relief Deal of 2020 contained several important provisions affecting RETC investments, as outlined below. The step down of the solar tax credit was delayed, and the wind production tax credit was extended at the full credit amount through 2021. With the extension, solar tax credits remain at 30% for projects under construction by the end of 2020 with a gradual phase-down to 26% for projects that begin construction in 2021 or 2022, 22% in 2023, and 10% in 2024 onward. Grandfathering rules for projects started prior to the stepdown can extend these timelines:

(1) Corporate tax rate — reduced from 35% to 21%.

(2) 100% bonus depreciation — as noted above, almost all investment property is eligible for a 100% bonus depreciation under the TCJA.

(3) BEAT — the BEAT tax is a new minimum tax designed to limit large multinational companies

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[8] *Frank Lyon Co. v. United States*, 435 U.S. 561 (1978).

[9] *Grodt & Mckay Realty, Inc. v. Commissioner*, 77 T.C. 1221 (1981).

[10] *Larsen v. Commissioner*, 89 T.C. 1221 (1981); *Estate of Thomas v. Commissioner*, 84 T.C. 412 (1985).

ISSN 0148-8295

from reducing their U.S. tax liability by claiming deductions for payments made to foreign affiliates, and while not aimed at the renewable energy industry or renewable energy tax credits, the BEAT tax may affect the value of tax credits to multinational banks and other corporations that invest in renewable energy projects if the investor is unable to offset its BEAT tax liability with renewable energy tax credits.[11]

Only 80% of the value of renewable energy tax credits may be used against the BEAT tax in each year through 2025. After 2025, none of the renewable energy tax credits may be used against a taxpayer's BEAT tax liability. It should be noted that this was a relatively favorable outcome for the RETC, as many other types of tax credits may not be used against the BEAT tax at all.

(4) Limitations on interest deductions — starting in 2018, the TCJA limited the amount of interest that can be deducted in any year to 30% of a borrower's taxable income, increased for depreciation and amortization deductions for tax years that end before 2022.[12]

After 2022, depreciation and amortization deductions are required to be considered, which will reduce taxable income and increase the likelihood that the limitation will apply.

Any interest that cannot be deducted on account of this limitation may be carried forward indefinitely to future taxable years.

This limitation was temporarily modified by the CARES Act for the 2019 and 2020 tax years, but is in full effect for 2021.

(5) NOLs — net operating losses (NOLs) may now be carried forward indefinitely to future tax years, but may no longer be carried back to previous tax years.[13]

Disallowance of NOL carrybacks could have an appreciable effect on certain sponsors — e.g., the significant gain generated in an earlier partnership flip deal cannot be offset by NOLs generated by a subsequent lease passthrough deal.

NOL carrybacks were temporarily allowed by the CARES Act for the 2018, 2019, and 2020 tax years, but are not available for taxable years after 2020.[14]

(6) Repeal of partnership technical terminations — the TCJA repealed the existing rule that treats a partnership as ''terminating'' when 50% or more of the capital and profits interest of a partnership are sold or exchanged within a 12-month period.[15]

The repeal of the partnership termination rules coupled with the new 100% bonus depreciation rules applicable to new and used property may give rise to new structures that seek to optimize the tax benefits in renewable and energy projects.

FORECAST: TAX-ADVANTAGED RENEWABLE ENERGY INVESTMENT GOING FORWARD

Investors, developers, accountants, and their respective counsel are using various different strategies to maximize the beneficial TCJA and COVID relief bill changes on the renewable energy market, and in turn employing new and innovative approaches to deal with the previously existing and newly enacted challenges to the industry.

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[11] Jane Gravelle, and Donald J. Marples, *Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)* (2018). CRS Report R45186. Washington, DC: Congressional Research Service.

[12] §163(j).

[13] §172(b).

[14] §172(b)(1)(D).

[15] §178.

ISSN 0148-8295