

What follows is an overview of various structures commonly used to monetize federal renewable energy tax credits and the depreciation deductions that are associated with them.

Discussed below include:

- The Partnership Flip
- The Sale-leaseback
- The Inverted Lease
- The Investment Tax Credit In Lieu Of The Production Tax Credit
- The DOE Grant In Lieu Of The Investment Tax Credit

Overview of Partnership-Flip Structure

The “single-entity” or “simple partnership” structure is also referred to by specialists as the “partnership flip” structure. The flip structure entails a private owner (i.e., an owner that is neither a government nor a tax-exempt) which directly owns (for tax and legal purposes) the renewable energy plant that is eligible for federal income tax credits and other tax benefits. Under this structure, the entity is required to be taxable as a partnership for federal income tax purposes, because under current federal tax law (unlike the law in some states) federal income tax credits and depreciation tax deductions cannot be sold. Therefore, instead of buying federal income tax benefits, a federal tax credit investor would literally invest, in the form of a contribution to the partnership, investor cash in exchange for a capital and profits interest in the partnership. Therefore, as a partner/owner of the underlying partnership property, each partner is allocated their respective share of partnership tax benefits such as income, gain, deductions, loss and tax credits.

In the flip structure, there is either a General Partner (GP) or Managing Member that is typically the project sponsor and manager and one or more separate Limited Partners (LP) or “Investor” Members who are primarily motivated to obtain state tax credits (if any) and in most every case, there will be a separate “federal investor” who is primarily motivated to obtain federal tax benefits. Note that one lone investor could choose to take both federal and state benefits.

The GP or project sponsor may be the project developer as well, so these may or may not be separate persons. The sponsor may or may not have the right to earn a developer fee for their efforts as project sponsor and business manager of the project. The lender, if any, is typically an unrelated third-party financial institution.

Project capital costs are therefore covered by a combination of sponsor equity, tax investor (the “tax equity”), equity raised from state tax credit investors, state or local grants, rebates, subsidies, etc., sales (including pre-sales) of renewable energy certificates or carbon offsets or heat or power, with the balance of construction sources being typically made up with debt. In some cases however, there may be no project level debt because of the use of so-called “back-leverage.”

Depending on the type of renewable energy project (e.g., wind or solar) and depending on the federal income tax credits involved (e.g., the federal production tax credit (PTC) versus energy investment tax credit (ITC)), the amount of tax equity contributed by the typical institutional investor may comprise up to 65% of the project capital in the case of some wind projects, or 40% in the case of solar or other projects that qualify for the federal energy investment tax credit.

With an ITC and the partnership structure, the partner receiving the investment tax credit benefits must be a partner in the project entity prior to the project being placed in service for federal income tax purposes. Also, with an ITC, if the inverted lease structure (see details below) is not used, the depreciation benefits for certain investment tax credit projects are required to be reduced by 50% of the investment tax credit amount.

In a partnership flip transaction, investors often evaluate their investment in terms of a target yield. That yield is compared by the investor to other investments it might make or compared to the percentage of project cost that is expected to be covered by their tax equity investment. This analysis differs from that of an investor in a sale-leaseback transaction (discussed separately below).

If an “investor” compares the financial accounting treatments of an investment in the form of a sale-leaseback, as compared to an investment in the form of a partnership flip structure, under Generally Accepted Accounting Principles (GAAP), in most cases, the investor in a partnership structure will often realize a more favorable impact on their financial statement than would a lessor in a sale-leaseback structure. This is due in large part to the impact that project level debt typically has on the GAAP treatment. In the case of a sale-leaseback, the lessor’s direct ownership of both the project assets and liabilities, is contrasted with the GAAP treatment of ownership of a partnership interest, where, depending on the renewable energy project (for example, wind versus solar) the tax investor’s equity contribution will cover between 40% and 60% of total project cost and therefore, giving rise to an unfunded balance required to be financed through some combination of debt, sponsor equity, state and local subsidies, or economics.

Therefore, in many cases, the ability to reduce the amount of liabilities that are required to be shown on the investor’s financial statement has a materially positive impact on the investor, often reflected in the form of reduced liabilities. In many cases, this translates into an improved ability to borrow by the investor and as such, an enhancement to the credit rating of the investor.

Moreover, in a partnership flip structure, though they will generally contain any number of indemnification provisions, the indemnifications provided in a partnership structure are generally more limited than in a sale-leaseback structure.

Overview of Sale-Leaseback Structure For Tax Benefit Monetization

The sale-leaseback financial model is a tried and true means of project finance for projects that have substantial tax benefits associated with them. There are many traditional banks and project finance lenders that are experienced and familiar with the sale-leaseback structure. However, in many cases, the banks and finance companies most comfortable with sale-leaseback financing as a means for the lender to obtain the federal tax benefits for their own use are the same lenders and finance companies that are unfamiliar with the other and more traditional tax equity finance structures, such as the partnership flip or inverted lease structures. Also, prior to Congress allowing production tax credit projects to claim the investment tax credit in lieu of the production tax credit only biomass projects were eligible for the sale-leaseback structure without being disqualified for the production tax credit.

One way to finance a renewable energy project is for the renewable energy project developer to construct and sell the energy project to an institutional investor but then lease that project back from the new institutional owner. One difference between the sale-leaseback structure and the partnership flip structure is that tax benefits accrue to the owner of the eligible project at the time the project is placed in service. However, under special federal income tax rules that apply expressly to sale-leaseback transactions for

investment tax credit projects, an investor in a sale-leaseback transaction has up to 3 months following the project's placed in service date in which to acquire the project and not lose eligibility for the investment tax credit. However, in order to qualify for that special tax treatment, the project must be leased back to the same person that originally placed it in service. For federal renewable energy production tax credits, not all projects can be done using the sale-leaseback structure while preserving the production tax credits. Although even with the special investment tax credit rules for sale-leaseback transactions, tax-exempt or governmental ownership or lease of the project may disqualify the project for federal tax credits, grants or depreciation.

In a sale-leaseback transaction, the tax motivated "tax investor" will legally own the leased assets versus an interest in the partnership that owns the assets. Once the initial developer or project sponsor sells the project to the tax investor and comes to the end of the lease term, the sponsor will often buy back the asset, either at a fixed price early buyout option (EBO) or at fair market value at the lease end. Typically, the sponsor retains profits in excess of the rent. During the lease period, the sponsor will have been deducting their lease payments for federal income tax purposes. Boiled down, this arrangement in the end, substantially resembles a loan with a scheduled set of payments, however, the rate on this "loan" is the after-tax return but with fixed payments. The residual risk at the end of the lease makes the lessor an equity participant rather than a lender because of IRS rules that require a 20% residual. Most often, a large up-front rent payment optimizes the return. With the lease, risk becomes the fair market value of the residual and that risk is born by the tax investor or lessor and that risk is not born by the sponsor. Therefore, the exposure to the buyout is the greatest determinant as to whether to use a sale-leaseback structure versus a partnership flip or other partnership structure (e.g. inverted lease).

Despite these nuances in the technical tax rules, under general federal income tax principles, the owner of property otherwise eligible for federal income tax benefits such as tax credits and depreciation deductions is entitled to those tax benefits. Therefore, the tax structure of a sale-leaseback transaction simply entails the purchaser of the project becoming the first owner able to claim all the federal tax credits and depreciation.

The sale-leaseback structure does however differ substantially from the partnership flip structure in that the renewable energy project sponsor who is otherwise directly entitled to their share of the tax benefits instead ends up in a sale-leaseback transaction sharing only indirectly in the federal tax benefits by virtue of their realizing the economic benefit of reduced rent for the use of the renewable energy project.

Another difference between a partnership flip transaction and a sale-leaseback transaction is that in a sale-leaseback transaction, the sponsor is focused on the net present value (NPV) benefit, which is the reduction in the cost of the equipment and an implied interest rate/cost-of-capital realized through the form of the lease as compared to the mere interest rate on straight debt. In the partnership flip transaction (where investors evaluate their investment in terms of a target yield to the investor) that yield is compared by the investor to other investments it might make, or compared to the percentage of project cost that are expected to be covered by their tax equity investment.

Another distinction between a partnership flip transaction and a sale-leaseback transaction is that a lease transaction provides 100% of the project financing. This of course means that the entire asset, as well as all the debt and liabilities of the project are reflected on the balance sheet of the project owner/lessor. If you compare the financial accounting treatment under GAAP of the lessor's direct ownership of both the project assets and liabilities to the GAAP treatment of a tax credit partnership structure, depending on the renewable energy project (for example, wind versus solar), the tax investor's tax equity position will cover between 40% and 60% of total project cost with any unfunded balance required to be financed through some combination of debt, sponsor equity, state and local subsidies, or economics. In most cases, the

investor in the partnership flip or inverted lease structure will realize a more favorable impact on their financial statement than would a lessor in a sale-leaseback structure in large part due to the impact that the project debt has on the GAAP treatment. Note however that the 100% financing mentioned above can be deceptive when making a comparative analysis because of the many ways in which debt can be introduced into a partnership flip structure, whether through so-called “back-leverage” or other means.

Another difference between a sale-leaseback and partnership flip structure is that the lease transaction typically transfers 100% of the tax benefits to the buyer whereas in a partnership flip structure, typically no more than 95-99% of the tax benefits are transferrable to the tax investor. However, this may or may not be a material consideration, depending on the investor profile.

A commonly perceived downside of the sale-leaseback transaction is that the renewable energy project sponsor/developer must pay fair market value to regain ownership of the project at the end of their lease term in order to maintain its use of the equipment.

Another distinction is in the area of indemnifications. Typically, the sponsor/developer/lessee will indemnify the investor for the loss of tax benefits in a lease, while in a partnership flip structure, though they will generally contain any number of indemnification provisions, the indemnifications provided in a partnership structure are generally more limited.

Also, in a sale-leaseback situation, if there is an early termination of the lease caused by the lessee, the lessee is typically required to make a loss value or termination value payment to the lessor in order to make the lessor or lender whole.

Finally, in a sale-leaseback transaction, the initial sale of solar equipment (which is for federal income tax purposes the sale of tangible personal property rather than real estate) is generally not subject to sales taxes because the sale is considered a “sale for resale.” Instead, sales taxes are collected on each rent payment. With a partnership flip structure, sales taxes are collected on the initial sale of the equipment to the project sponsor partnership. However, certain states offer both sales and property tax exemptions for many renewable energy properties.

With all those distinctions in mind, the question that a typical renewable energy project sponsor will ask is whether or not the sale-leaseback structure is a better method of monetizing the tax benefits as compared to a partnership flip structure or the inverted lease structure given how the investor must account for their investment in addition to the investor’s anticipated yield.

In a typical case, a sponsor may raise slightly more equity with a partnership flip structure than with a sale-leaseback transaction. However, the after-tax yield on flip structures will be slightly lower than with sale-leasebacks (e.g. 9.84% v. 10.29%). Assuming a 5.85% discount rate, the after-tax net present value with the partnership flip structure might however be slightly higher than with the sale-leaseback structure (e.g. \$18.36 v. \$17.22). However, at a discount rate of 7.8%, the after-tax net present value of a partnership flip structure may be slightly lower than with sale-leaseback structures (e.g. \$8.00 v. \$8.09).

Therefore, raising equity by receiving capital contributions in exchange for partnership interests typically reduces the investor’s capital investment while having a relatively small impact on net value. Tax equity generally maintains present values and increases yields with less risk because the typical sale-leaseback structure requires a buyback of the residual in the property of 20%, whereas, compared to the more limited residual exposure in a partnership flip, the risk in a partnership form is comparatively nominal. Exposure to buyouts is a primary determinant between partnership flip and sale-leaseback financing structures.

However, it is absolutely critical to remain sensitive to how nuances of any particular project structure will affect the generalizations discussed above. Variables such as the timing of the funding (for example, whether the investor enters the transaction in January versus June versus December), whether the transaction contemplates post-flip buyouts, the fair market valuation at the time of buyout, the term of the flip, the existence of cash sweeps, whether or not cash grants are utilized, whether the investor's target yield remains constant for both the exit buyout and full term of the project, the projected residual value, whether or not the structure in a sale-leaseback transaction has truly optimized prepaid/deferred rents, and the extent of leverage in the transaction are all relevant. All these ultimately make it a case-by-case analysis when assessing which structure, sale-leaseback, partnership flip, or inverted lease is the best structure for any particular investor.

However, it is clear that in most cases, the inverted lease structure (discussed below) will provide the investor with the most positive impact to their financial statement, and often despite the initial bias or first impression of the investor that the sale-leaseback structure offers a higher return, when the GAAP and other risk factors are assessed, it is the inverted lease structure that is ultimately chosen.

Because a significant determinant of the optimal financial structure may, in many cases, be GAAP driven, it is critical that the generalizations with respect to GAAP discussed herein be vetted and approved by certified public accountants specializing in the accounting treatment of renewable energy project investments. Nothing contained herein should be construed or relied upon as advice on such matters as they may pertain to any particular project, sponsor or investor.

Overview of “Inverted Lease” Structure – Investment Tax Credit Eligible Projects

Despite the general rule that energy related federal income tax benefits belong first to the legal owner of the qualified property, there is an express exception in the federal income tax Code and Regulations that allows lessees of energy investment tax credit eligible property to claim the tax credit instead of the owner/lessor of that property. This provision is however distinct from separate provisions under the production tax credit (PTC) that allow in only certain limited exceptions for a lessee to claim tax credits.

It is this feature of the federal tax Code allowing the lessee to claim the investment tax credit otherwise available to the owner that caused one well-known attorney in the energy industry to coin the description “inverted lease.” Prior to the coinage of that term, those familiar with real estate related investment tax credits have relied upon and applied these rules and tax equity finance structures for decades. Therefore, for decades prior to the popularity of energy tax credit investments, these structures were known as and continue to be known as the “master-tenant” or “master-lease” structure. Regardless of name, this structure has a long accepted history and in general, is known to many as a bona fide tax structure due to it being expressly provided for in the federal income tax Code and Regulations such that well respected tax attorneys are able to issue legal tax opinions supporting the structure.

This tax structure simply takes advantage of Internal Revenue Code and Treasury Regulations that allow lessees of eligible § 48 property to claim the § 48 tax credit in lieu of the actual legal owner. Though organized substantially like the single entity structure on the sponsor side, the structure differs in that the renewable energy property is leased to a second entity and it is that lessee entity that is entitled to the federal income tax credits.

As such, the tax-equity investor will be admitted into the lessee entity (often at 95-99%) in order that they may receive their respective allocation of the tax credits as a partner participating in the profits of that entity.

The lessee company, of course, makes a lease payment to the lessor. In order to cover its expense of the lease payment, the lessee entity will in turn have typically entered into a power purchase agreement (PPA) or other energy services contract with the end-user or off-taker of the energy generated by the leased energy property.

However, in cases involving tax-exempt or governmental entities, the entity which leases the energy property from the lessor would have **only** an energy service contract or PPA to provide energy services to the tax-exempt or governmental unit. Neither the tax-exempt nor governmental entity would have a lease of or ownership interest in the energy property leased by the lessee from the sponsor/lessor. Specialized tax and financial structuring is required if any tax-exempt or governmental use is expected.

Investors (other than governments or tax-exempts) interested in investing in only the tax credits (i.e., not depreciation deductions) would invest in the lessee entity only and the lessee entity would not also invest in the lessor entity. This is because when the investment tax credits flow to the investors in the lessee entity, the depreciation deductions would stay with the owner for tax purposes (i.e., the lessor) and thus flow to the owners or investors in the lessor entity and not the investors in the lessee entity unless the lessee entity was also an owner of some percentage of the lessor entity.¹

However, in many cases, the tax-equity investor may wish to receive an allocation of depreciation deductions and tax losses, and in that case, the lessee entity may desire to own an equity interest in the lessor entity. In that case, because the lessee is now also an owner/partner of the entity which owns the tax credit property, the investor would be entitled to an allocation of the tax depreciation and operating losses from its share of the lessor entity, while also getting its allocation of tax credits from the lessee entity. A number of complex tax rules arise under such structures. Therefore, expert tax counsel is required.

Because the investment tax credit is claimed in its entirety during the initial year of the investor's investment, the timing of this benefit substantially improves the yield to the investor. However, in today market, tax equity is looking for yields in the high teens on an after-tax unlevered analysis, based primarily on the federal tax benefits, with a nominal interest in economics. Although the investor must have a profit motive for federal income tax purposes, tax benefits comprise the majority of the investor's yield. Therefore, in order to obtain tax based yields in the high teens, the lessee entity may require an allocation of depreciation, so that the investors in the lessee entity can attain their target yield through a combination of cash profits from operations of the lessee and tax credits, depreciation deductions, and operating losses.

From an investor's standpoint, there are several advantages to the pass-through lease structure on a renewable energy transaction. Its appeal comes largely from the fact that, from the perspective of the tax equity investor (who in essence exchanges their capital for tax benefits) the transaction is easy to exit after

¹ In that case, under special tax rules, there would be no reduction to depreciable basis for the lessor entity, but income equal to the amount of the tax credits would be recognized by the lessee entity over the length of the recapture period.

5 years. However, of even greater importance to many tax equity investors is the preferable form of GAAP treatment. Investors sensitive to how their investments reflect on earnings will often not invest in any other form.

Investment Tax Credit In Lieu of Production Tax Credit

For facilities placed in service after December 31, 2008, federal tax law now allows taxpayers to make an irrevocable election to have otherwise qualified production tax credit (PTC) eligible property treated as if it was instead “energy property” eligible for a Internal Revenue Code Section §48 30% investment credit (ITC).

Qualified facilities include wind facilities placed in service in 2009 through 2012; and the certain other facilities (including open-loop biomass, closed-loop biomass, geothermal, small irrigation, landfill gas, trash facilities, qualified hydropower, and marine and hydrokinetic facilities) placed in service in 2009 through 2013. This election is available to all production tax credit facilities, except Indian coal, refined coal, and solar facilities. Regardless, this applies only to tangible personal property, not buildings or their structural components.

There is also a special rule for wind facilities, in that this election only applies to 5-year depreciable property. Once the ITC election is made, the rules specific to ITCs generally apply, and that includes the option to use the pass-through lease structure described above as well as the issues and comments discussed above.

On a comparative basis, in general, but depending on a number of factors too numerous to detail here, the PTC provides more value than the ITC in about two-thirds of all cases. Open-loop biomass receives more value from the investment tax credit in most combinations of installed cost and capacity factors, whereas geothermal overwhelmingly receives more value from the production tax credit (regardless of whether the investment tax credit equals 10% or 30%). Wind, closed-loop biomass, and landfill gas are more evenly split between the two different credits, though with a slight preference for the production tax credit, specifically with closed-loop biomass.

Investors still find the PTC partnership flip structure appealing, particularly when they have single digit or low double-digit yield requirements and long-term (i.e., more than 5-year) federal income tax minimization requirements. Lastly, the ability to elect the ITC in lieu of the PTC is limited by the statutory expiration date and therefore, only those projects capable of meeting the deadline are eligible.

DOE Grant In Lieu of Investment Tax Credit

The American Recovery and Reinvestment Act of 2009 allows taxpayers to elect to receive a cash grant from the U.S. Department of Energy in lieu of the investment tax credit. Because taxpayers can now elect to take the ITC in lieu of the PTC, federal grants, by adoption, are available for eligible PTC projects. The cash grant is generally not includable in gross income, but a reduction to depreciable basis in the amount of 50% of the grant amount must be made.

Most PTC and ITC facilities are eligible for a 30% grant, but some (ITC geothermal, qualified microturbine, combined heat and power, and geothermal heat pump) qualify only for a smaller, 10% grant. In addition, for grants taken on fuel cell or microturbine property, the grant amount will be the lesser of 30% or \$1,500 for each 0.5 kilowatt of capacity for fuel cell property, and the lesser of 10% or \$200 for each kilowatt of

capacity for microturbine property. To qualify for a grant, the facility must be placed in service in 2009 or 2010, or construction of a significant nature must begin in either of those years and the project must be completed prior to the relevant credit termination date.

The 30% investment tax credit and the 30% cash grant only appear on first impression to provide the same amount of financial value. However, there are quantitative financing-related considerations that nonetheless favor ITC monetization versus the cash grant. If a project owner elects the cash grant in lieu of the ITC, the project owner essentially obtains one dollar of capital for each dollar of tax credit surrendered. However, when monetizing federal income tax benefits it is often not just the tax credits that are being monetized. Most often, in order to raise sufficient equity, both depreciation deductions and tax credits must be monetized in addition to operating losses and cash flow. Therefore, if the grant is chosen, to the extent that depreciation benefits, operating losses, and cash flow would also need to be monetized in order to ensure raising sufficient cash equity, those other tax and economic benefits would need to be separately monetized.

Unfortunately, under current federal income tax rules, the monetization of tax deductions or “losses” independently of tax credits and income is highly problematic. This is because a partner’s ability to actually obtain a tax allocation of deductions/losses is often independent of their ability to actually claim those deductions/losses on their tax return. This is a function of a number of anti-tax shelter provisions put into place as part of the 1986 Tax Reform Act. Specifically, there are tax loss allocation rules under § 704(b) of the Internal Revenue Code, as well as at least two “at-risk” rules, passive activity loss rules, passive activity credit rules, and outside basis limits under § 705(d). The net effect of these long-standing anti-abuse rules is that the stand-alone monetization of depreciation/loss deductions is less than optimal in situations not involving a sale-leaseback transaction or in situations where the project sponsor is unable or unwilling to carry forward a substantial tax net operating loss. So much so that without simultaneously monetizing the federal ITC and cash-flows, most partnership flip or pass-through lease investors will not be interested in investing solely for the residual depreciation/loss benefits that are effectively left over as the result of having taken the cash grant in lieu of the ITC.