

## Renewable Structures: Choices and Challenges

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Since the first wind deal utilizing a partnership in 2003<sup>1</sup> (also known as a “partnership flip,” a “pre-tax after-tax partnership,” or a “wind safe harbor partnership structure”), there has been a constant evolution of structures and a proliferation of financing alternatives for renewable energy transactions. In the last year alone, we have seen a wide variety of twists on the partnership flip structure, as well as the use of single-investor structures, leveraged leases, pass-through (or inverted) leases, back-leverage debt financings, securitizations, seller-financed loans, property assessed clean energy (PACE) financings, master limited partnerships (MLPs), real estate investment trusts (REITs), “yieldcos,” and financing from grants provided by the federal government (e.g., the Treasury Department, the Department of Energy, the Department of Defense, and the Department of Agriculture).<sup>2</sup> While the development of some of these structures was driven by an issue unique to the type of asset or to the sponsor, equity investor, or lender, collectively, these structures have improved the cost of financing and the viability of the renewable energy space. Below is a thorough yet non-exhaustive overview of these structures and attendant issues in today’s renewable market.<sup>3</sup>

### The Partnership Flip

A partnership flip is the standard, go-to structure in the renewable market for obvious reasons. It is understood, aligns the interests of the parties, and is flexible and reliable. It is understood that the economics and metrics are generally defined at the outset and are well tested. Generally, the equity investor’s return is expected over a defined period (10 years or less) and is comprised of cash and tax benefits. The developer’s/sponsor’s return is comprised mostly of cash and the renewable asset’s residual value (i.e., post flip and post expiration of the underlying offtake arrangement, if any).<sup>4</sup> These economics align the interests of the parties in that they give the equity investor the confidence that, in the

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<sup>1</sup> The first wind deal utilizing a partnership in this generation of utility-scale transactions was the 37.5 megawatt (MW) wind farm located in Sweetwater, Texas. See Sweetwater Windpower Project Highlights (<http://www.duke-energy.com/commercial-renewables/sweetwater-windpower.asp>).

Through the end of 2014, more than 65 gigawatts (GW) of wind power have been installed in the U.S. See American Wind Energy Association, U.S. Wind Energy Capacity Statistics, through fourth quarter of 2014 (<http://www.awea.org/Resources/Content.aspx?ItemNumber=5059&navItemNumber=744>).

<sup>2</sup> Transactions that have been financed by grants provided by the federal government will be discussed in a subsequent article.

<sup>3</sup> One further note is that while the structures described herein have or could be used for most of the assets described in Internal Revenue Code (IRC) Section 45 (e.g., wind, biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydropower production, and marine and hydrokinetic renewable energy) or IRC Section 48 (e.g., qualified fuel cell property, qualified small wind energy property, solar property, geothermal deposit property, combined heat and power systems, and small wind energy property), this article is primarily focused on wind facilities and solar assets—utility scale as well as distributed generation.

<sup>4</sup> A partnership flip relies on a detailed financial model to calculate the point at which the equity investor “flips” from holding a majority interest in the partnership (typically 99 percent) to a minority interest (as low as 5 percent). This model will rely on certain fixed assumptions and will project future cash flows, expenses, and tax benefits over the life of the renewable asset.

near term, it will recover its investment and the specified return. Meanwhile, the sponsor recovers most of its invested funds relatively quickly and remains incentivized to operate and maintain the facility at as high a level as possible so that the equity investor's interest will "flip" and it realizes a return on the residual interest in the asset as soon as possible. The partnership flip is flexible in that it can be used with most assets and its terms can be tailored as appropriate and required by the parties. It is reliable, as it is almost always governed by Delaware law and, as such, is managed and operated subject to a well-defined set of statutes and precedents.<sup>5</sup>

This is not to say that the partnership flip structure does not have its quirks. For example, given the level of investment an equity investor is willing to make in any particular renewable facility, the availability of accelerated depreciation deductions and front-loaded losses,<sup>6</sup> and the perceived inability to separate income from these losses,<sup>7</sup> the equity investor must often agree to a deficit restoration obligation (DRO)<sup>8</sup> in order to retain the investment tax credit (ITC)<sup>9</sup> or to be allocated PTCs.<sup>10</sup> A DRO is an obligation to contribute funds to the partnership in the event a deficit exists at the time of liquidation. So, not only might the investor lose its investment in an unfortunate situation, but it may also be required to contribute additional amounts to an already lost investment. Despite these concerns, equity investors have generally come to grips with DROs for a variety of sensible reasons, including that the DRO is short-lived (i.e., income allocations occur relatively soon after the capital account deficit exists), a liquidation is fairly unlikely (if there is no indebtedness on the facility, the likelihood of an involuntary liquidation seems quite remote), and for assets that are distributed geographically, a catastrophic casualty is not a concern and a local law change likely will not affect the rest of the portfolio.

A second issue with the partnership flip structure is that, in order to gain the benefit of tax credits and losses, the investor must make an equity investment and not a loan. While this is invariably understood and accepted, equity investors have sought means to protect their investment when things do not go as planned. Given that the distinction between an equity investment and a loan is imprecise<sup>11</sup> at best, it is possible that there will be a challenge to the

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<sup>5</sup> The investment entity will almost always be a Delaware limited liability company treated as a partnership for U.S. federal and state tax purposes. For wind assets, this is not a coincidence, as IRC Section 45, which governs production tax credits (PTCs), requires that the investors (by way of their investment in a partnership) must own and operate the asset (as opposed to a lease where different parties own and operate the asset). IRC Section 45's policy for this requirement has long been suspect, as the party most suited (income tax-wise) is seldom the party equipped with the ability to operate the asset. One plausible explanation for this requirement is Congress's concern that a taxpayer that does not have to ensure successful operation of the asset may abuse the tax credit and abandon the asset. Because the credit is only available when the wind facility actually sells power, these concerns seem unwarranted.

<sup>6</sup> Despite having an economic useful life of over 25 years, a wind facility is entitled to depreciation deductions under IRC Section 168 on most of the facility assets using a five-year depreciation period. As a result, very large tax losses occur in the early years of the facility's economic life.

<sup>7</sup> Certain practitioners have taken the position that electricity is an inventoriable good and thus is governed by the rules under IRC Section 263A. The effect of this position is that depreciation deductions derived by an energy asset are treated as "above the line" deductions and cannot be allocated to partners separate from income derived by the asset. While the federal government appears to agree with this position in private letter rulings, the law is less than clear and it is certainly a stretch to think that electricity is a good.

<sup>8</sup> U.S. federal income tax law (specifically, Treasury Regulation § 1.704-1(b)(2)(ii)(b)) generally requires that if a partner has a deficit balance in his capital account following the liquidation of his interest in the partnership, as determined after taking into account all capital account adjustments for the partnership taxable year during which such liquidation occurs, such partner is obligated to restore the amount of such deficit balance to the partnership. While an alternative to this requirement is a "qualified income offset" (QIO) as defined in Treasury Regulation § 1.704-1(b)(2)(ii)(d) (essentially income is allocated to eliminate unexpected losses as quickly as possible), it does not seem appropriate to rely on a QIO when the losses are expected in all circumstances.

<sup>9</sup> Under IRC Section 50, an investor is required to recapture all or a portion of the ITC if it transfers its interest in the partnership or if it is allocated less than two-thirds of its proportionate interest in the general profits of the partnership when the IRC Section 48 asset was first placed in service. See Treasury Regulation § 1.47-6.

The provision triggering recapture on transfer is fairly straightforward, while the provision regarding recapture as a result of a reduced allocation is more subtle and problematic (e.g., if losses are reallocated to the sponsor due to the lack of a DRO, will the two-thirds threshold be crossed?). See I.R.S. Priv. Ltr. Rul. 86-51-050 (Sep. 22, 1986) (ruling that reallocation of income and gain to a general partner to offset losses allocated to such partner under Section 704(b), otherwise allocable to limited partners, would not trigger investment tax credit recapture).

<sup>10</sup> Allocations of PTCs follow gross income allocations under Treasury Regulation § 1.704-1(b)(4)(ii). If the investor does not have a DRO and losses are reallocated, then so too is gross income (along with the PTCs).

<sup>11</sup> Whether an interest is characterized as debt or equity is determined using a multi-factor analysis. This inquiry is highly fact specific and uncertain; there are no guidelines as to how many factors must be satisfied to qualify as either debt or equity, and any one factor may or may not be dispositive. See generally *TIFD III-E, Inc. v. United States*, 459 F.3d 220 (2d Cir. 2006); *Texas Farm Bureau v. United States*, 725 F.2d 307 (5th Cir. 1984), cert. denied, 469 U.S. 1106 (1985); *Fin Hay Realty Co. v. United States*, 398 F.2d 694 (3d Cir. 1968); *Laidlaw Transportation, Inc. v. Comm'r*, 75 T.C.M. (CCH) 2598 (1998); *Hambuechen v. Comm'r*, 43 T.C. 90 (1964); Notice 94-47, 1994-1 C.B. 357.

character of an investor's interest in situations in which the flip is highly certain to occur on the originally anticipated date.<sup>12</sup> Some of the approaches taken by investors appear to be acceptable and would not result in the investment being recharacterized as anything other than an equity investment (i.e., as debt). For example, it should be permissible for the governing documents to provide for an increase in cash distributions to the equity investor in the case of the renewable asset operating well below expectations (e.g., in a p90 case).<sup>13</sup> Similarly, the equity characterization of an investment should not be challenged if the equity investor takes somewhat of a wait-and-see approach and increases its investment as it is allocated tax benefits ("PAYGO contributions").<sup>14</sup> Other techniques, such as annual adjustments to cash distributions such that the equity investor is guaranteed its projected flip date, should be approached more cautiously.<sup>15</sup>

Another issue with the partnership flip structure is the difficulty that developers/sponsors have had thus far with securitizing their cash flows and obtaining the desired advance rate on back-leverage loans. The degree of trouble that has been present with securitizing partnership cash flow seems excessive given that cash flows through a partnership interest are no less at risk to third-party claims in a properly structured transaction than cash flows that do not pass through a partnership.<sup>16</sup> Hopefully the market and rating agencies will appreciate the legal realities and necessity of using a limited liability company (taxed as a partnership) and will increasingly provide the requisite ratings to permit these transactions to occur. The advance rate issue experienced on back-leverage loans derives from the priority afforded to an equity investor on a breach of a representation or covenant by the developer/sponsor and the equity investor's right to trap developer/sponsor cash. However, this is a commercial issue that we have seen resolved with fair compromises that protect the equity investor's indemnity recovery while also minimizing any advance rate reduction.

## Single-Investor and Leveraged Leases

The lease structure, first recognized by the U.S. government 60 years ago,<sup>17</sup> is an effective, simple structure that has had a checkered history in the renewable energy space for a variety of reasons—some valid and some not.<sup>18</sup>

A lease is a natural structure for an equity investor, as it allows the equity investor to buy the renewable facility for its fair market value<sup>19</sup> and simultaneously enter into a "triple net lease" with the lessee (typically an affiliate or subsidiary of the developer). The equity investor will be entitled to collect ongoing rent from the lessee, while the lessee bears

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<sup>12</sup> See, e.g., *Hydrometals, Inc. v. Comm'r*, 31 T.C.M. (CCH) 1260 (1972); *Mapco v. U.S.*, 566 F.2d 1107 (Ct. Cl. 1977).

<sup>13</sup> In other words, where there is a 10 percent chance that the p90 base case will not be reached.

<sup>14</sup> See Revenue Procedure 2007-65, 2007-2 C.B. 967, as revised by Announcement 2007-112, 2007-2 C.B. 1175, and Announcement 2009-69, 2009-40 I.R.B. 475 (permitting up to 25 percent contingent contributions).

<sup>15</sup> See, e.g., *Historic Boardwalk Hall, LLC v. Commissioner*, 694 F.3d 425 (3rd Cir. 2012), rev'g 136 T.C. 1 (2011); *TIFD III-E, Inc. v. United States*, 459 F.3d 220, 232-33 (2d Cir. 2006), rev'g *TIFD III-E, Inc. v. United States*, 342 F. Supp. 2d 94 (D. Conn. 2004); *Mapco v. U.S.*, 566 F.2d 1107 (Ct. Cl. 1977).

<sup>16</sup> This is not to suggest that the cash flows in a partnership flip structure may not be subject to some variability (e.g., if a delayed flip entitles an equity investor to a cash sweep); however, this variability does not fully explain the resistance that the market and rating agencies have had with respect to securitizing partnership cash flows.

<sup>17</sup> See Rev. Rul. 55-540, 1955-2 C.B. 39. This Revenue Ruling was subsequently updated and revised into a form in which a taxpayer could request an advance ruling for a transaction. See Rev. Proc. 2001-28, 2001-1 C.B. 1156; Rev. Proc. 2001-29, 2001-1 C.B. 1160 superseding Rev. Rul. 55-540 (the "Leasing Guidelines").

Under the Leasing Guidelines, in order to be respected as a lease for U.S. federal income tax purposes, *inter alia*, there must be a minimum residual value and life in the asset at the end of the lease term, the investor/lessor must make a minimum unconditional at risk investment, the lessee must not have a purchase option other than at fair market value, and the property must not be "limited use property."

<sup>18</sup> See, for example, IRC Section 45, which does not permit separation of ownership (and entitlement to the PTC) and operation of the renewable asset. As discussed above, the policy rationale for this requirement is not entirely clear.

<sup>19</sup> Fair market value is often a negotiated amount and is supported by an appraisal by an independent and unrelated party. Parties to this structure, and for that matter, most of the structures discussed herein, must be extremely diligent and confident in their fair market valuations.

virtually all day-to-day responsibility for the renewable facility (including operating, maintaining, insuring, and paying taxes). The equity investor derives its return from tax benefits (tax credits and depreciation), rental income (cash), and the residual interest in the renewable facility after the lease expires (for a new or renewed lease or a sale of the facility). As the equity investor is entitled to tax benefits as a matter of law and, depending on the creditworthiness of the lessee, the rents have a degree of certainty, it is the residual valuation where any challenge or debate between the parties typically resides. Equity investors will rarely ascribe meaningful value to the post-lease-term period, despite the fact that the asset likely has an economic useful life well beyond the lease.<sup>20</sup> Obviously, this is a costly proposition for the developer/sponsor, as it deprives it of meaningful value and, in many cases, makes this structural alternative unattractive.<sup>21</sup>

In the context of a leveraged lease specifically, a primary issue is whether the equity investor/lessor stands to suffer a recapture of the ITC (and loss of the underlying asset) if the third-party lender were to foreclose on its ownership of the renewable facility in the event of default. In order to avoid recapture, the parties will often negotiate with the lender as to whether it will be required to forbear from the exercise of remedies during the first five years of the lease.<sup>22</sup> While parties have reached compromise on forbearance, it is clearly a challenging issue with levels of risk that may be unacceptable to a lender's or investor's credit committee.<sup>23</sup> Another issue in the context of an ITC asset is the sizing of the loan and equity. Under case law, an equity investor can borrow as much as 87 percent of the value of an asset.<sup>24</sup> For an advance ruling under the Leasing Guidelines, an equity investor can borrow as much as 80 percent of the value of an asset. Under either authority, when an asset has an ITC equal to 30 percent of the investment in the asset, the equity investor will have no investment in the asset (e.g., an equity investor invests 20 percent and then claims an ITC on its tax return of 30 percent). There is no authority suggesting this is an issue. One explanation for this may be the view that the market will impose its own discipline—once the asset is in service, the ITC is not transferable, so the value of the ITC asset on “day two” decreases to approximately 70 percent. Given this, and a lender's normal requirement that an asset's value exceed the outstanding loan amount by some multiple, the commercial reality is that the equity investor will need to have some material investment other than the ITC.

## Pass-Through/Inverted Lease

The pass-through (or inverted) lease is a creature of tax law—the ITC provisions permit a lessor to pass-through the ITC (i.e., transfer the benefit of the ITC) to the lessee such that the lessee can claim the ITC on its tax return.<sup>25</sup> With

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<sup>20</sup> Obviously, this is an economic or business view. For the lease to be respected as such under the Leasing Guidelines and case law, there must be a meaningful expectation of residual value and expected life of the asset at the end of the lease term.

<sup>21</sup> Granting the lessee a purchase option does not solve this problem, as it merely requires the lessee to pay at least the expected fair market value of the renewable facility. While a fixed-value purchase price is generally prohibited by the leasing guidelines (Rev. Proc. 2001-28), it is otherwise well supported by the case law if it is at the expected fair market value. See, e.g., *Lockhart Leasing Co. v. U.S.*, 446 F.2d 269 (10th Cir. 1971); *Belz Inv. Co. v. Comm'r*, 72 T.C. 1209 (1979), *aff'd on other grounds*, 661 F.2d 76 (6th Cir. 1981); *LTV Corp. v. Comm'r*, 63 T.C. 39 (1974); I.R.S. Tech. Adv. Mem. 93-13-001 (Apr. 7, 1992); I.R.S. Priv. Ltr. Rul. 88-14-006 (Apr. 30, 1985); I.R.S. Priv. Ltr. Rul. 81-30-087 (Apr. 29, 1981), *amended by* I.R.S. Priv. Ltr. Rul. 81-40-086 (July 13, 1981); I.R.S. Priv. Ltr. Rul. 81-20-024 (Feb. 17, 1981).

<sup>22</sup> A transfer of the ownership of investment credit property (whether by sale, foreclosure, or otherwise) within five years of the date such asset is placed in service will result in a recapture of a defined percentage of the ITC. IRC Section 50(a).

<sup>23</sup> A long forbearance period has its own set of issues. Most obviously, the lender might be characterized as holding an equity interest in the renewable facility and thus cause the equity investor to lose a portion of its ITC. See, e.g., *Hunt v. Comm'r*, 59 T.C.M. 635 (1990); *Investors Insurance Agency, Inc. v. Comm'r*, 72 T.C. 1027 (1979); *Hartman v. Comm'r*, 17 T.C.M. (CCH) 1020 (1958).

<sup>24</sup> *Estate of Thomas v. Comm'r*, 84 T.C. 412 (1985) (respecting lease where lessor's initial equity investor was approximately 13 percent).

<sup>25</sup> See IRC Section 48(d) (before repeal in 1990), as incorporated into post-1989 law by IRC Section 50(d)(5). This election makes it possible for the credit to be shifted to a lessee, which, according to legislative history, allows the party closest to the asset to benefit from the related tax subsidies and pass those savings on to the ultimate customer.

this structure, the developer/lessor will lease the renewable facility or facilities—and assign the related offtake agreement(s)—to an equity investor.<sup>26</sup>

If a lessor elects to pass-through the ITC to the lessee, the law under IRC Section 50 provides that the ITC is determined as if the developer/lessor sold the renewable asset to the investor/lessee for its fair market value on the date the lease commences.<sup>27</sup> Stopping there, the structure has several meaningful benefits: the developer/lessor need not recognize gain, as there is no disposition of the renewable asset;<sup>28</sup> fair market value is not constrained by the amount an investor is willing to expend;<sup>29</sup> and, perhaps most importantly, the lessor does not need to reacquire the renewable asset at the end of the term of the lease (the lease simply expires) and thus can fully realize the residual value of the asset without incurring any additional cost.<sup>30</sup> Another benefit of the structure is that it is well suited to back-leverage and securitizations, as the developer (in its role as owner/lessor) can pledge the renewable asset and the rents to a lender.

The main issue with this structure is that it puts the equity investor in an unnatural customer-facing position. As a result, although the investor may contract out its responsibilities, the investor is primarily responsible for the day-to-day operation and maintenance of the renewable asset and must manage regulatory and consumer issues. The investor also stands to lose its interest in the asset in the event of a bankruptcy and trustee rejection of the lease. Finally, the equity investor stands to lose its investment and/or return if the renewable facility does not perform according to expectations or the power offtaker breaches payment or other obligations. Despite these issues, given the significant advantages to this structure, sponsors have insisted on its use. Investors have complied accordingly, but have gone to great lengths to mitigate the stated risks. As with the partnership flip structure, most of investors' responses to mitigate risks are sensible, but some go so far as to threaten the integrity of this structure and the anticipated tax benefits.<sup>31</sup>

## Back-Leverage

Back-leverage can be used to describe a wide array of debt-financing transactions and structures. It is essentially the means by which a developer/sponsor monetizes its investment and cash flow in a renewable facility or facilities.

As described earlier, in a typical partnership or pass-through lease structure, an equity investor will fund only a portion of the overall value of a renewable facility and will leave the sponsor with an ongoing (mostly cash) interest in the partnership or pass-through lease. To tap into this cash for ongoing capital needs or otherwise, the developer/sponsor frequently borrows against the cash flow by pledging, among other things, its interest in the partnership or renewable facility, depending on the structure. Aside from the normal debt negotiations with respect to covenants and consents, a particularly material economic issue involves the advance rate (i.e., loan amount) and the impact on that in the event of

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<sup>26</sup> In most cases involving this structure, the offtake agreement has a term that is longer than the term of the lease to equity investors. The grounds for respecting this arrangement are that it changes the economic position of the parties. In a Revenue Procedure published in 2014, the IRS, without notice or precedential support, suggested that a lease term that is shorter than the offtake agreement might not be respected. While the Revenue Procedure is intended by its terms to apply to the IRC Section 47 rehabilitation credit from qualified rehabilitation expenditures, the renewable market continues to struggle with the logic and potential applicability of this Revenue Procedure to renewable assets. Rev. Proc. 2014-12, 2014-3 I.R.B. 415.

<sup>27</sup> The election treats the lessee as having acquired the property for an amount equal to its fair market value. IRC Section 48(d)(1)(A) (as in effect immediately prior to enactment of P.L. 101-508 (1990), made applicable by IRC Section 50(d)(5)); Regulation § 1.48-4(c)(2)(i). Upon receiving the ITC, the lessee is required to include in its gross income ratably over a five-year period an amount equal to 50 percent of the ITC allowable to such lessee. IRC Section 48(d)(5) (as in effect immediately prior to enactment of P.L. 101-508 (1990), made applicable by IRC Section 50(d)(5)).

<sup>28</sup> By comparison, in the partnership flip and lease structures, the developer will recognize gain on the sale of the renewable asset to the partnership or lessor, respectively.

<sup>29</sup> Compare single-investor/leveraged leases, discussed above, in which the investor may ascribe little or no value to the residual value.

<sup>30</sup> Given all this, the only party to "suffer" from an inflated fair market value is the Treasury, as such valuations in these structures may undergo additional scrutiny. See, e.g., Department of Treasury, "Evaluating Cost Basis for Solar Photovoltaic Properties" (2011).

<sup>31</sup> For example, some equity investors seek a full forbearance even if rent is not paid to the lessor.

interruptions in cash flow. In the partnership flip structure, it is common for the developer/sponsor to make representations with respect to an array of corporate and tax issues, a breach of which will entitle the equity investor to divert cash distributions from developer/sponsor to itself (unless the developer/sponsor otherwise satisfies its indemnity obligations, typically through a guaranty or other credit support). It is also common for the equity investor to require that it be entitled to take the lion's share of cash distributions if the flip return is not achieved by some defined point in time. Both of these features result in interruptions in cash flow to the developer/sponsor and thus the back-leverage lender and, as indicated, can impact the advance rate materially.

To assess the materiality of the issue, the parties usually engage in an analysis as to the likelihood of a breach of the developer's/sponsor's representations, the potential amount of the developer's/sponsor's indemnity obligations, and the likelihood of the developer/sponsor satisfying such indemnity obligations. A similar analysis is usually also made as to the impact on the advance rate from a possible delay of the flip date.<sup>32</sup> Armed with this data, and given the importance of back-leverage for developers/sponsors, heavy negotiations have occurred in order to achieve a fair economic deal.<sup>33</sup>

## Securitizations

Securitizations are a natural evolution of back-leverage arrangements in the distributed generation (DG) solar space, given that DG solar agreements with high-credit customers are an excellent asset to bundle and securitize. Prior to the economic crisis of 2007, securitizations were extremely common in the financial markets. Most involved home mortgages, auto loans, and credit card lines that were aggregated as collateral for loans that were rated by the national rating agencies. Like home and auto loans, customers of DG solar are of a certain degree of credit quality, have entered into long-term agreements to pay defined amounts, and have meaningful collateral to offer (e.g., the solar installation). Given this (and the fact that powering a laptop, entertainment system, smart phone, etc., may be as important as paying any other bill), the DG solar space is ideally suited for securitizations.

Despite these considerations, given the relatively short history of the DG solar market and the lack of corresponding relevant data, the rating agencies have been slow to embrace these transactions, particularly if the customer agreements are housed in one of the equity structures discussed previously. In order to make securitizations attractive for the rating agencies and other players in the market, the first DG solar securitizations did not involve tax equity. Instead, the sponsor, typically through a special purpose vehicle (SPV), was in a direct relationship with the host customers. As such, early securitizations of DG solar assets collateralized the securitized debt with a direct pledge of the solar installation, as well as the related customer agreement.<sup>34</sup> However, because the direct pledge arrangement has limitations on availability and because there is little reason to conclude that a partnership or pass-through lease decreases the security or collateral available to the lender, progress is currently being made to combine renewable equity structures with securitizations.<sup>35</sup>

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<sup>32</sup> Where the term of the back-leverage agreement is shorter than the expected flip date, this issue is likely not relevant.

<sup>33</sup> Working against developers/sponsors is the success that equity investors have had on both of these sweep issues in precedential transactions. Acknowledging that as fact, developers/sponsors have responded that lenders are increasingly aware of the issue and, as a result, will impose a significant cost on the pricing of a loan.

<sup>34</sup> SolarCity Corporation took this approach in the first asset-backed security tied to rooftop solar energy production of approximately \$54.4 million in loans for solar photovoltaic installations.

<sup>35</sup> Again, SolarCity Corporation was at the forefront of this structure by first combining tax equity with a \$201.5 million securitization in 2014.

## Seller-Financed Loans

A seller-financed loan is another structure that is related to the DG solar market and involves a twist on the usual host customer arrangement. To date, host customers have generally agreed to buy power (or rent the solar installation) in a long-term offtake arrangement (a power purchase agreement (PPA)). Frequently, this has not required the host customer to put money down for the solar installation.<sup>36</sup> However, in a growing number of cases, host customers are no longer interested in this arrangement, and would rather buy the solar facility outright. That said, many of these customers do not have the funds necessary to acquire the solar facility and/or are not interested or capable of borrowing the funds from a third-party lender.<sup>37</sup> In these situations, seller-financed loans are well suited and consistent with many DG solar companies' "one-stop-shop" *modus operandi* (i.e., the solar company provides installation, operation and maintenance, and financing with respect to the solar facility).

In the seller-financed loan structure, the host customer will buy the solar installation from the DG solar company for a pre-determined list price. The host customer will finance this purchase with a seller loan for the purchase price (often with no money down). Generally, the seller (or an affiliate of the seller) will agree to operate and maintain the system. This arrangement is intended to allow the host customer to benefit from the IRC Section 25D tax credit<sup>38</sup> and to pay less in energy costs under the seller-financed loan than it would if it did nothing and continued to buy power from the local utility. A couple of obvious issues with these transactions are whether the financing arrangement results in a true sale to the customer and, if so, whether the purchase price of the solar installation is entirely allocable to the installation itself (or whether some value should be allocable to future operations and maintenance and/or a warranty agreement). If the first item is an issue, no IRC Section 25D tax credit will be available to the host customer.<sup>39</sup> If some of the purchase price is not allocable to the solar installation, the host customer will not benefit from the full amount of the IRC Section 25D tax credit (i.e., the basis of the solar installation will be lower than the full purchase price paid by the host customer).<sup>40</sup>

On the other hand, one benefit of this structure is that seller-financed loans are well suited for back-leverage securitizations because the DG solar company can monetize the relatively secure future cash flows from host customer loans. Another benefit is the lack of a need for a tax equity investor because the host customer monetizes the tax credit. However, lost are accelerated depreciation deductions generally available to corporate and equity investors.<sup>41</sup> Whether this fact will result in homeowners not being willing to pay as much for a solar system as an equity investor in a structured deal is yet to be known.<sup>42</sup>

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<sup>36</sup> The selling point to the host customer is that the host customer can have the system installed without incurring an up-front cash outlay. In addition, at least at the outset, the host customer's energy bill will be lower than what the host customer would be charged by the local utility for the same power usage.

<sup>37</sup> The average 5 kilowatt solar system can cost as much as \$30,000.

<sup>38</sup> As an owner of a solar installation, the host customer may be entitled to the IRC Section 25D credit for qualified solar electric property expenditures made with respect to a system placed in service no later than December 31, 2016. The credit should be equal to 30 percent of the purchase price of the solar installation.

Although a host customer who finances the purchase of qualifying property through the seller of the property may calculate the amount of the IRC Section 25D credit based on the full cost of the property, he or she is not entitled to claim a credit for payments of interest owed through financing or for other miscellaneous expenses such as an origination fee or an extended warranty. Accordingly, if a portion of the solar installation purchase price is allocable to future operations and maintenance, a warranty agreement, or other miscellaneous costs, this portion of the purchase price will not be taken into account in determining the host customer's IRC Section 25D tax credit.

<sup>39</sup> In this case, the ITC would stay with the developer/sponsor, but the basis of such ITC would be limited to the developer's/sponsor's actual development cost.

<sup>40</sup> The obvious defense to this issue is that the other items provided are on market terms and possess no inherent value.

<sup>41</sup> This is because depreciation deductions are only allowed with respect to assets used in a trade or business. IRC Section 167.

<sup>42</sup> This begs the question of whether the fair market value of the renewable system should be dependent, at least in part, on a tax subsidy only being available to a particular investor group.

## PACE Financings

Before returning to a discussion regarding structures suitable to renewable assets generally, it is worth noting that PACE financing is another structure available specifically for the DG solar market. PACE (or “property assessed clean energy”) is an attempt by certain states and municipalities to foster the growth and financeability of DG solar. In its most basic form, PACE financing involves a homeowner entering into an agreement (frequently referred to as an “assessment agreement”) with a municipality’s SPV, in which the homeowner agrees to pay an additional amount on its property tax bill (set forth as a separate line item) and the municipality SPV agrees to provide the homeowner (or the solar company on behalf of the homeowner) the funds required for the solar installation.

The municipality SPV may raise the funds necessary for the PACE financing from a bond issuance. The result is that the SPV will have a property tax lien on the solar installation that is on par (*pari passu*) with all other secured lenders, including the home’s mortgage lender. As such, a PACE financing enhances the credit quality of the host customer arrangement and potentially enables developers/sponsors to successfully finance lesser credit-quality residential host customers (generally those with lower FICO scores), as well as a broader array of commercial and industrial customers.<sup>43</sup>

The main issue with PACE financing is that it is a structure that is still evolving—it is not fully understood (even by participating municipalities), the enacting laws of states and municipalities continue to be in flux (or at least are unclear), and the structure involves participation by the government (which can be somewhat slow and cumbersome). PACE financing structures involving the other equity structures discussed above are also still developing. However, the credit quality of long-term customers is of utmost importance and any means by which this quality can be improved is highly desirable in the renewable market. Accordingly, we expect PACE financings generally, as well as those involving equity investors, to occur with greater frequency in the near term.

## MLPs and REITs

Master limited partnerships (MLPs) and real estate investment trusts (REITs) are discussed and considered far more than they are actually used in the renewable space. MLPs are corporations for all intents and purposes, but taxed as partnerships (thus they do not have two levels of taxation).<sup>44</sup> To be entitled to this treatment, at least 90 percent of an MLP’s income must be qualifying income.<sup>45</sup> “Qualifying income” includes, *inter alia*, interest, dividends, real property rents, and income and gains derived from the exploration, development, mining or production, processing, refining, transportation, or marketing of any mineral or natural resource.<sup>46</sup> Income derived from soil, water, the air, or similar inexhaustible sources is not qualifying income for MLP purposes.<sup>47</sup> Thus, on its face, with one notable exception, renewable assets (namely wind and solar assets) do not produce qualifying income and an MLP holding primarily these assets will likely be taxed as a corporation.<sup>48</sup> Several bills have been proposed in the last few years to broaden

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<sup>43</sup> The PACE financing market may be somewhat limited, however, as the Federal Housing Finance Agency has indicated that government-sponsored enterprises will not be permitted to buy mortgages connected to the PACE program (<http://nationalmortgageprofessional.com/news/52573/watt-reaffirms-ban-pace-program-loans>).

<sup>44</sup> See IRC Section 7704.

<sup>45</sup> IRC Section 7704(c)(2).

<sup>46</sup> IRC Section 7704(d).

<sup>47</sup> *Id.*

<sup>48</sup> The exception here is Sol Wind Renewable Power, L.P. To combat the restriction with respect to solar assets, Sol Wind has proposed a structure whereby a MLP will hold renewable assets through its ownership in subsidiary corporations—the effect being that the majority of the MLP’s income will be qualifying dividend income (and not income derived from solar or wind assets). See Form S-1 filed in December 2014 by Sol Wind ([http://www.sec.gov/Archives/edgar/data/1616330/000104746914010077/a2222463zs-1.htm#bg17401\\_table\\_of\\_contents](http://www.sec.gov/Archives/edgar/data/1616330/000104746914010077/a2222463zs-1.htm#bg17401_table_of_contents)).

the qualifying income definition to include income from renewable assets such as solar and wind, but none have made it out of committee.<sup>49</sup>

A REIT is another vehicle structure created by legislation and it too is exempt from corporate-level taxation.<sup>50</sup> In order to qualify as a REIT, at least 75 percent of the value of the REIT's total assets must consist of real estate, cash and cash items, and government securities.<sup>51</sup> For purposes of this rule, real estate includes "land or improvements thereon, such as buildings or other inherently permanent structures." Proposed Treasury Regulations have been issued that provide that solar photovoltaic modules are generally not real property (unless mounted on land adjacent to an office building).<sup>52</sup> Thus, again, with the very narrow exceptions described in the previous sentence, renewable assets do not qualify.

Sorting out why from a policy perspective renewable assets are not worthy of the special treatment afforded MLPs and REITs is not a worthwhile exercise. That said, given the renewable space's need for capital from a reliable, efficient source and at least some pockets of Congress having an aversion to tax credit-type subsidies, it would seem natural to broaden the definition of MLPs and REITs to include entities holding renewable assets.

## Yieldcos

As with MLPs and REITs, the discussion of yieldcos in the renewable space seems more extensive than the actual use of the structure. However, by necessity and in order to tap into a source of capital hoped to be deep and relatively cheap, the market has increasingly developed yieldco structures for renewables.<sup>53</sup>

A "yieldco" is a publicly traded company that is projected to pay a yield on an investment in a stated range. Yieldcos are not new investment vehicles,<sup>54</sup> but the use of yieldcos for renewable assets is novel. A review of recent yieldcos reveals that they can be quite different in terms of asset acquisition strategies, management structures, and even asset composition.<sup>55</sup> What they do have in common is that they are corporations (and are taxed as such), they seek to accumulate a substantial amount of assets, these assets are expected to have a steady stream of cash and to increase in value over time, and collectively these assets are expected to generate significant tax savings from credits and depreciation so that the yieldco is not expected to pay taxes, if at all, until well into the future. Thus, a yieldco, although not a pass-through entity like an MLP or a REIT, actually behaves in a similar manner from a tax standpoint, since the yieldco does not have taxable income (or retained earnings) and therefore distributions are viewed as a return of capital.<sup>56</sup>

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<sup>49</sup> The Master Limited Partnership Parity Act was first introduced in 2012 and reintroduced in 2013 by Senator Chris Coons. Neither the Senate nor House version of the bill has made it out of committee after referral in 2013.

<sup>50</sup> IRC Section 856.

<sup>51</sup> IRC Section 856(c)(3).

<sup>52</sup> Proposed Treasury Regulation § 1.856-10(g) (examples 8 and 9).

<sup>53</sup> In the past few weeks alone, yieldcos have been proposed by SunEdison, First Solar, Recurrent Energy, and SunPower.

<sup>54</sup> Although the use of yieldcos has increased in recent years, the first yieldcos emerged in the late 1990s in energy, real estate, and other industries.

<sup>55</sup> For example, recent yieldco offerings by NRG, Pattern Energy, Brookfield, and others have included wind, solar, and hydro assets, along with traditional fossil fuels assets. The size of these offerings also varies widely (from the low millions to close to a billion-dollar offering). Some yieldcos (such as NRG's recent yieldco offering) are assured a pipeline of renewable facilities from a related party; others (such as Brookfield) will rely on third-party acquisitions.

<sup>56</sup> Return of capital on an interest in a corporation will not be taxed as a dividend, but will lower basis and, to the extent the return exceeds basis, will be taxed as capital gains. IRC Section 301.

Whether yieldcos will prove to be a long-term solution, or even a viable alternative in the renewable space, is an interesting and ongoing debate. Some see it as living on borrowed time subject to interest-rate movements, the availability of assets at a reasonable price, tax-law changes, and the health of the collective market (i.e., if one yieldco misses its yield projections, will the other performing yieldcos suffer?). Proponents see yieldcos as a long-term source of reliable, affordable capital. Given its recent proliferation, serious consideration should be given to the yieldco structure.

## What's Next

Since the development of the renewable energy space began in earnest, it has undergone constant development, change, and challenges. With that, it has brought a staggering increase in sponsors, developers, investors, and lenders in an industry, power and utilities, not previously inclined to change or welcoming of new entrants. It has also brought about significant and dramatic technological innovations, contributed to reduced reliance on traditional energy sources, and made itself a part of our day-to-day lexicon with words like “sustainable,” “renewable,” “reliable,” and “green energy.”

That said, the renewable space may be in for its biggest set of challenges unless Congress extends the PTC and ITC.<sup>57</sup> These subsidies have been critical to the renewable energy sector and have permitted wind, solar, and other renewable energy assets to develop rapidly in the last 12 years—allowing these assets to compete with fossil fuel power facilities. However, renewable facilities have quite a way to go before they are capable of being on par with traditional energy sources, as intermittency and reliability issues are still being addressed. Thus, renewable technology requires additional time to develop and undergo further innovation.

Similarly, the structures discussed in this article have undergone their own improvements and innovation. As renewable energy technology and the marketplace evolve, so too must the structures by which we finance these assets.

Despite the progress made thus far, additional evolution is—and will continue to be—necessary to meet the ever-changing needs of this burgeoning industry. Until renewable energy is able to truly compete with fossil fuels (some of which benefit from their own attractive subsidies), extension of the PTC and ITC is key to providing the time necessary to allow continued technological and structural development in the renewable market.

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<sup>57</sup> As of the date of this article, the ITC is set to decrease to 10 percent at the end of 2016 and the PTC expires for renewable facilities that did not begin construction by December 31, 2014.