Renewable Energy: Where we are Now and How Renewable Energy Investment and Development can be Expanded

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Abstract

The renewable energy field is currently stifled because many renewable energy developments require tax equity investors to provide additional funds to get the project off the ground and running. The Code provides tax credits to incentivize investors to invest. Currently, the Investment Tax Credit ("ITC") is the only available credit left for renewable projects placed in service from 2014 on. Tax credits are a step in the right direction to encourage renewable investment; however, the credits are limited in application mostly to large financial institutions. Moreover, investments into one specific renewable energy project can be risky because there is no assurance that the development will actually make money or be placed in service on time to receive the expected credit amount. Additionally, investing directly on-site into a renewable energy project is mostly accomplished for the purpose of receiving a credit to offset taxes from passive taxable income. This purpose may not meet the needs of many investors. Instead of a tax credit, other investors may want some type of rate of return, either through dividends, stock appreciation or some other method.

To remedy these issues, the legislature and the IRS should focus on expanding renewable energy investment in a couple of different ways. First, the government should continue to put pressure on large companies (finance and other) to invest in renewable energy projects and to make renewable energy investment commitments. Second, these companies may not have an objective to receive a tax credit for investing directly on-site to a renewable project. Therefore, there needs to be alternative methods for these companies to invest. Asset-backed securities, Real Estate Investment Trusts (REITs) and Master Limited Partnership’s (MLPs) are alternative
investment methods that would satisfy these companies’ investment needs. Moreover, because on-site investment is mostly limited to large institutions, these alternative investment methods open the market for smaller investors to get a piece of the pie. The smaller investor pool is untested water: it could provide for a substantial amount of renewable energy investment.

These alternative methods would be used in conjunction with the ITC because companies have different investment objectives. Large financial institutions will still want to invest on-site to receive the credits and deductions, whereas other companies that do not have enough taxes from passive taxable income (so they otherwise would not be investing in the renewable project anyway) can invest in the securities for a rate of return. This will have the affect of increasing renewable investment and development.

1. **Introduction**

Renewable energy has become an important economic player in the United States over the past decade. Typically, renewable energy has only represented 5-7% of power consumption in the United States.\(^1\) In June 2013, the Energy Information Administration (EIA) issued a report that renewable energy sources provided 9.81 percent of U.S. energy consumption and 11.82 percent of U.S. energy production for the first half of year 2013.\(^2\) Although this is progress, the United States is far from its goal to have 15% of electric energy consumed through renewable energy sources in 2016 and 2017, 17.5% in 2018 and 2019 and 20% in 2020 and each year thereafter.\(^3\) To incentivize renewable energy growth the United States government provides credits to tax equity investors to stimulate growth. This paper will explore the credits that are available, who tax equity investors are, what their role is in renewable energy development, why

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credits are limited to large financial institutions and what alternatives the government can utilize to increase renewable energy development and investment amongst companies and smaller investors.

II. Background

a. What is so important about Renewable Energy?

There are two facets of renewable energy that are increasingly important. First, the United States heavily relies on coal, oil and natural gas for energy consumption. The United States’ net import share of total U.S. energy consumption was 16% in 2012, but the United States imported 40% of petroleum consumed in 2012. The EIA notes that the United States expects that the net import share of energy consumed will decrease to 4% in 2040. Although the timing of this prediction is a bit unrealistic the prediction tells us that the United States expects to focus on increasing the use of domestic energy sources. This is a step in the right direction for our country.

There are currently about 950,000 people employed, directly or indirectly, through the renewable energy market. At the very least, the United States needs to keep its current position in the renewable energy sector to keep these individuals employed. However, there is much room for growth here. For example, employment in the solar field has grown 60 percent since 2010, creating over 25,000 new jobs in that sector alone. If renewable energy is to expand we will rely less on our foreign counterparts to sell energy to us and we will boost our economy

5 http://www.eia.gov/forecasts/aeo/er/early_production.cfm
6 http://www.eia.gov/forecasts/aeo/er/early_production.cfm (an unrealistic prediction considering that 2040 is in 26 years)
through increases in employment. As renewable energy growth increases, however, there is the potential that other energy sources, such as coal, will begin to shrink in terms of market share with a possible compounding negative effect on employment in those other sectors.

So, how can we increase renewable energy investment and development? I will first briefly explain the credits that are currently available, who tax equity investors are, what their role is in renewable energy development and why credits are limited to large financial institutions. Afterwards, I will explain four ways the investor pool can be broadened: Increased investment by large companies/institutions, Securitization, Real Estate Investment Trusts and Master Limited Partnerships.

b. **Tax Credit Overview**

26 U.S.C. § 45 is the provision that governs the Production Tax Credit (“PTC”). The PTC is a per-kilowatt-hour tax credit for electricity that is generated by “qualified energy resources” and the energy is sold to unrelated persons.9 Section 45 provides that the taxpayer responsible for the renewable energy development will receive credits for ten years and the credit for each year is dependent on energy production.10 The section also provides that the project must have been placed in service by December 31, 2013 to be eligible to receive the credit.11

I would like to point out here that the inconsistency of the availability of the tax credits is a major problem (i.e. the tax credit expires and is not automatically renewed). Investors that invest in renewable energy projects make their decision, in part, based on whether the tax credit will be available to use.12 Without certainty, tax equity investment is stifled.13 This decrease in

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investment is seen especially when the credit expires because there is no assurance that the 
credits will be extended. The focus of this paper, however, shifts away from this issue and 
discusses who can take advantage of these credits, assuming that the credits will continue to be 
available/extended, and how renewable investment can be expanded upon.

26 U.S.C. § 48 is the section that governs the Investment Tax Credit (“ITC.”) Unlike the 
PTC, taxpayers utilize the ITC by taking a tax credit equal to 30% or 10% (depending on what 
type of renewable energy development it is) of their basis/cost in the development the year the 
development is placed in service. The ITC is also available for properties that are placed in 
service before January 1, 2017.

From a policy perspective, the PTC seems like the more efficient credit because it is 
entirely based on the production of electricity. The ITC, however, has nothing to do with 
production of electricity and the ITC development could be useless and the taxpayer will still get 
the credit. From a business perspective, it appears to me that the ITC is the better option to 
encourage renewable energy investment. The ITC is the credit counterpart to the 1603 cash 
grant, which is no longer in effect. The 1603 cash grant received a lot of attention, and it seems 
reasonable that a lump-sum credit upfront is more attractive to investors than an uncertain 10-
year credit based on production because anything can happen within the 10-year time-span that 
the PTC is available for. With a goal to increase renewable energy development the ITC makes 
the most sense even if it is not the most efficient credit.

Although the ITC theoretically achieves the goal of attracting more investors to renewable energy projects, after December 31, 2016, the ITC for solar energy used to generate electricity, heat/cool a building or provide solar process heat will decrease from 30% to 10%.\(^{17}\) Moreover, the ITC for geothermal heat pumps, hybrid solar lighting, small wind, fuel cells and micro-turbines will expire.\(^{18}\) I strongly believe that the reduction and expiration of the ITC is a mistake.

For example, over the last decade, the amount of wind energy consumed as compared to total renewable energy consumed has exponentially increased.\(^{19}\) In year 2000, wind energy comprised of less than 1% of total renewable energy consumed.\(^{20}\) However, in 2007 wind energy represented 5.2% of total renewable energy consumed and in 2013 wind energy represented 17.2% of total renewable energy consumed.\(^{21}\)

Although there is not direct evidence that the credits are the reason that renewable energy production and consumption has increased over the past six years there is a strong correlation. The ITC was created and applied in 2006 and was expanded by the American Recovery and Reinvestment Act of 2009.\(^{22}\) Since these dates, total renewable energy production and consumption has increased from 6,500 trillion btu (British Thermal Unit) in 2007, to 8,100 in 2010 and 9,300 in 2013.\(^{23}\) Since 2007 there has been a spur of renewable energy growth, through what I think, is attributable to the availability and expansion of the tax credits. If anything, the credit percentage for wind energy should increase if the United States would like to

\(^{17}\) [http://energy.gov/savings/business-energy-investment-tax-credit-itc](http://energy.gov/savings/business-energy-investment-tax-credit-itc)
\(^{22}\) [http://energy.gov/savings/business-energy-investment-tax-credit-itc](http://energy.gov/savings/business-energy-investment-tax-credit-itc)
maintain its goal to have twenty percent of electric energy consumed through renewable energy sources in 2020.  

We have seen that renewable energy investment and development sharply decreases as a result of tax credits lapsing. Although I do not see renewable energy investment and development declining this drastically as a result of the ITC percentage decrease the outcome could be similar. As a result, I think the next best course of action is to expand the investor base for renewable projects. Before describing the methods of expanding investment, I will explain what tax equity investments are, why the investment is deemed to be passive and what effect the passive limitation has on investors and their investment abilities and decisions.

c. **What is a tax equity investment?**

Tax equity financing means an investor makes an investment into a renewable energy development specifically for the cash flow and tax benefits associated with the renewable energy investment. The tax credits can only be used by clean energy developers that have enough profit to offset the credit with. However, because renewable energy developments are typically start-ups the developer most likely has not reached the point of profitability yet, thus, the developer will not be able to use the tax credits. As a result, developers seek investment from institutions that have enough taxes from passive taxable income to offset the tax credit with. These investors are called tax equity investors. Tax equity investors are typically “large tax-
paying financial entities such as banks, insurance companies and utility affiliates. Of these financial institutions, 15-20 have dominated the renewable energy credit market.

d. Why are the major renewable energy credit players large financial entities?

Tax equity investments are commonly structured through limited liability companies (“LLC”) or limited partnerships where the investor’s activities are typically passive. A passive activity means that the investor does not “materially participate” in the development and management of the renewable energy development. Tax equity investors will only get involved in the management/development when something goes wrong with the performance of the investment/project. The IRS designated what “material participation” means in Publication 925. Specifically, the IRS noted that “personal service activities” represent “material participation,” stating that:

“The activity is a personal service activity in which you materially participated for any 3 (whether or not consecutive) preceding tax years. An activity is a personal service activity if it involves the performance of personal services in the fields of health (including veterinary services), law, engineering, architecture, accounting, actuarial science, performing arts, consulting, or any other trade or business in which capital is not a material income-producing factor.”

It makes sense that renewable energy investors are mostly limited to large financial institutions. First, the IRS provides an exception for large financial institutions by excluding

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31 Project Finance International: Renewables Report May 2012, Bridging the Gap: Equity Funding Gap
them as a “personal service activity” in test six of the “material participation tests.”

By definition, a financial institution is not a “material participator” unless it meets one of the other tests noted in the publication. This is important because if the investor materially participates the investment is no longer a passive activity. The IRS further illustrates the exception for financial institutions by specifically noting that “[y]ou do not treat the work you do in your capacity as an investor in an activity as [material] participation unless you are directly involved in the day-to-day management or operations of the activity.”

Also important to note is that although tax equity investors may get involved if something goes wrong with the investment/project, IRS Publication 925 designates in the “material participation tests” one, two, three, four and seven that an investor may not participate for more than one-hundred or five-hundred hours in the activity in order to remain passive. The amount of hours the investor cannot exceed is dependent on the circumstances set out in the publication.

Second, the tax credit is limited to passive taxable income because the tax credit itself relates to the investment, which is a passive activity. This is an important aspect of the investment to take note of because this is the reason the ITC is mostly limited to financial institutions. Financial institutions have a lot of passive taxable income, and therefore, will have the capability to use the tax credit to offset passive taxes. The investment is a passive activity as a result of the tax-planning structure that is set in place. There are three structures that I will

briefly discuss to give a high-level idea about what is going on and why the tax credit relates to passive income: 1) Partnership Flip; 2) Sale Leaseback; and 3) Inverted Lease.\(^{40}\)

In a partnership flip, a developer and tax equity investor form a partnership.\(^ {41}\) The taxpayer, who can be the partnership or the tax equity investor, must be the owner of the assets.\(^ {42}\) A taxpayer is considered the “owner” if there is substantial economic effect in the partnership’s profit/loss etc. allocations.\(^ {43}\) To have economic effect, the partner to whom the allocation is made must receive the economic benefit or economic burden that corresponds to the allocation.\(^ {44}\) As the “owner,” the taxpayer can take advantage of the allocations that the partnership agreement sets forth.\(^ {45}\)

The tax equity investor is allocated 99% of partnership net income and losses for a five-year period.\(^ {46}\) Then, usually about 95% of the net income and losses are flipped back to the developer.\(^ {47}\) Therefore, the tax equity investor will retain about a 5% interest in the project.\(^ {48}\) In the end, the tax equity investor hopefully receives income and tax credits as a return on the investment (ROI), and the developer receives the interest in the partnership five years later at a low cost.\(^ {49}\) The tax equity investor has a passive relationship in the partnership and to the renewable energy development.

\(^{40}\) https://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf
\(^{41}\) 1-27 Energy & Environmental Project: Finance Law & Taxation § 27.05
\(^{42}\) https://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf
\(^{44}\) Treasury Regulation 1.704-1b2ii(a); see Treasury Reg. 1.704-(1)(b)(2)(iii) for rules on substantiality.
\(^{45}\) 26 U.S.C. §§ 704 (a) & (b) (2006).
\(^{46}\) 1-27 Energy & Environmental Project: Finance Law & Taxation § 27.05; http://greenzu.com/solar-tax-equity-investor-returns; see also IRS Revenue Procedure 2007-65 for the additional rules governing the structure of a solar project.
\(^{47}\) 1-27 Energy & Environmental Project: Finance Law & Taxation § 27.05
\(^{49}\) 1-27 Energy & Environmental Project: Finance Law & Taxation § 27.05
A typical partnership flip transaction looks like this: First, a tax equity investor will contribute funds to a partnership for a 99% partnership interest. The tax equity partner, therefore, will be entitled to 99% of the tax credit.\(^{50}\) The tax equity investor will be entitled to the ITC in the 1\(^{st}\) year and then the depreciation deductions thereafter.\(^{51}\) For example, the investor may have invested $120,000 in the project, the project’s cost was $334,000 (and ITC is based on cost/basis) and the tax equity investor gets 99% of the ITC, which is 30% of $334,000, or 100,000.\(^{52}\) Then, the investor will be entitled to the allocable share of depreciation deductions in the following years.\(^{53}\)

Even if the tax equity investor receives 100,000 in tax credits and 100,000 in depreciation deductions over five years the tax benefit in of itself is not enough to incentivize an investor to invest. This is because the tax benefits are only worth what the taxpayers tax rate is for each dollar (i.e. if the taxpayers tax rate is 35%, the benefit the taxpayer receives is .35 on each dollar). Thus, to make the investment worthwhile, there has to be some prospect of positive cash flow for the tax equity investor to receive a ROI. This reasoning equally applies to all tax equity investments. This cash flow is achieved, in part, by a constant rate of return each year and through a buyout price that the developer pays to acquire the tax equity investor’s interest in the partnership.\(^{54}\) Otherwise, the tax equity investor only receives profit/loss according to his 99% interest in the partnership.\(^{55}\) In the early years, like many start-ups, it is more likely that the tax equity investor will realize losses.

\(^{51}\) http://greenzu.com/solar-tax-equity-investor-returns
\(^{52}\) http://greenzu.com/solar-tax-equity-investor-returns
\(^{53}\) http://greenzu.com/solar-tax-equity-investor-returns
\(^{54}\) http://greenzu.com/solar-tax-equity-investor-returns
In a sale-leaseback scenario, the developer sells the renewable energy development to the
tax equity investor and the investor, in an integrated transaction, leases the project back to the
developer. Similar to car leases from dealerships where the dealership is still the “owner” for
tax purposes, the tax equity investor is still the owner, and therefore, is entitled to receive the
ITC the first year and depreciation deductions thereafter. An advantage of the sale-leaseback is
that the tax equity investor receives 100% of the tax benefits alongside lease payments. A
disadvantage is that the tax equity investor has to put up more financing—100% of the project’s
cost. Parties are incentivized to enter into this transaction because once the tax equity investor
has received the ROI/tax credits the project will be sold back to the developer. Again, the
nature of this structure is passive, and therefore, the credits offset taxes from passive taxable
income.

In the inverted-lease transaction, there are two partnership entities. The first partnership
entity, the “master tenant,” is created through 99% of funding from the tax equity investor and
1% of funding from the developer. The “master tenant” functions as both a flow-through and
also as the lessee of the renewable energy development.

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56 1 Depreciation Handbook § 8.03
57 https://www.deloitte.com/assets/Dcom-
UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf
59 1 Depreciation Handbook § 8.03
60 https://www.deloitte.com/assets/Dcom-
UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf
61 https://www.deloitte.com/assets/Dcom-
UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf;
http://www.deloitte.com/assets/Dcom-
UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf;
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62 https://www.deloitte.com/assets/Dcom-
UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_AESem2012_1_1_2_1IntTaxEquity_101012.pdf;
http://www.deloitte.com/assets/Dcom-
as a “property owner,” installs the renewable energy project.63 The “property owner” partnership then leases the renewable energy project to the “master tenant” partnership and elects to pass the credits to the “master tenant.”64 Because the “master tenant” is also a partnership the credits will flow-through 99% to the tax equity investor and 1% to the developer.65 The “master tenant” can then sub-lease the renewable energy development to a 3rd party, whereby the income will be distributed according to the allocations set forth in the partnership agreement (most likely 99% and 1%). Again, these allocations need substantial economic effect to be sustained.

As explained briefly above, the nature of these structures are passive, and therefore, the credits offset taxes from passive taxable income. Thus, the structures and ITC are mostly limited in application to large financial institutions. The major financial institutions have the resources to understand and work through the above scenarios, but the complications and technicalities can be a barrier to entry for smaller “new entrant” investors who might otherwise had been a viable investment candidate.66 To remedy this issue, some scholars have proposed that a standardization of transaction documents/contracts be issued to provide a comprehensive and understandable guide as to how investors can use these tax structures.67 The idea here is that documents “could be drafted and peer-reviewed by key industry participants, energy finance lawyers and financial institutions, and then reviewed by various trade associations, including the

66 Project Finance International: Renewables Report May 2012, Bridging the Gap: Equity Funding Gap
However, I do not think that standardization of transaction documents is nearly enough to broaden the investor base. Standardization in of itself would not do much. The investment is still passive as a result of the structure and investment objectives. Therefore, whether there is standardization or not, a direct on-site passive investment is still mostly limited to large financial institutions because the credit offsets taxes from passive taxable income. Yet, standardization used in conjunction with other methods that expand the investor base could prove to be effective. These other methods are: Increasing investment amongst large companies; Asset-Backed Securitization; “Real Estate Investment Trusts” (REITs); and “Master Limited Partnerships” (MLPs). The description and analysis of these investment methods is where the paper will turn to next.

III. Broadening the Investor Pool

There are two major ways of broadening the investor pool: generally encouraging investment from large companies and expanding investment opportunities to companies and smaller investors through asset-backed securitization, REITs and MLPs. The former focuses on encouraging renewable investment by large companies/institutions, both domestic and foreign, in all industries.  

a. Domestic and Foreign Corporate Investment

In 2012, the Obama administration courted 79 U.S. technological, industrial and retailer companies, including Exxon Mobil and Walt Disney, to invest in renewable energy projects. These companies have a significant capacity to make renewable investments and take advantage
of the ITC because in 2011 alone the 500 largest companies in the U.S. paid over $137 Billion in taxes.\(^1\) In fact, Ceres, a leading non-profit organization in the renewable field, has called for one trillion dollars of \textit{global} renewable energy investment per year for thirty-six years, starting in 2030.\(^2\) In 2012, the total global renewable energy new investment was $250 Billion.\(^3\) In 2013, however, new investment dropped down to $214 Billion.\(^4\) Ceres notes that to realistically attain the trillion-dollar goal renewable energy investment needs to reach around $500 Billion per year by 2020.\(^5\) This goal can be attained through increased investment from companies in all industries.

The political pressure for increased renewable investment by large corporations has had some success. Some Fortune 100 and Global 100 corporations have set voluntary renewable energy investment commitments, such as AT&T, Google, GM, HSBC and Wal-Mart.\(^6\) Currently, 14\% of the Fortune 100 and 16\% of the Global 100 have set renewable energy commitments.\(^7\) These investment commitments are categorized as near term (will invest through 2015), mid-term (investing through 2020) and long-term (investing through 2050).\(^8\)

Some companies, like Costco, buy-in to renewable energy without any targets but with a goal to offset electricity costs of their own.\(^9\) On the whole, however, companies with specific commitment targets have invested more into renewable projects.\(^10\) The pressure for new companies to invest should continue, but the pressure should also extend to existing corporate

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\(^3\) [http://www.unep.org/pdf/Green_energy_2013-Key_findings.pdf](http://www.unep.org/pdf/Green_energy_2013-Key_findings.pdf)
\(^4\) [http://www.unep.org/pdf/Green_energy_2013-Key_findings.pdf](http://www.unep.org/pdf/Green_energy_2013-Key_findings.pdf)
\(^5\) [http://www.ceres.org/issues/clean-trillion](http://www.ceres.org/issues/clean-trillion)
\(^6\) Ceres, \textit{Power Forward: Why the World’s Largest Companies Are Investing in Renewable Energy}, pg. 4
investors to harden their renewable energy investments by making investment commitments. This would hopefully help to achieve, at the very least, the United States’ goal of having twenty percent of energy consumed by renewable energy sources in 2020 and each year thereafter. Moreover, the political pressure might be most effective if concentrated on specific industries. For example, in 2012, the health care and industrial sectors had only one company that set renewable energy investment commitments.

The renewable energy investment commitments are made domestically and on a global scale. However, before foreign corporations invest in renewable energy projects in new markets, such as the United States, foreign corporations are identifying the availability of favorable opportunities before making any investment decisions. These opportunities involve the availability of renewable energy credits. As we will see later, these opportunities should also include renewable-based asset-backed securities, REITs and MLPs.

b. **Foreign Corporation Issues with Global Renewable Investment**

It is important to note that companies will most likely only invest in direct on-site renewable projects if the ITC will be available. A couple of issues in the context of foreign corporations arise here. For one, foreign companies may have some reluctance to invest in renewable projects in the United States because foreign corporations need enough U.S. source passive taxable income for the ITC to offset passive taxes (assuming that the investment is passive). Without U.S. source passive taxable income the ITC cannot be used. A distinction should be made here between U.S. active and passive income for foreign entities. A foreign

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81 http://www.whitehouse.gov/the-press-office/2013/12/05/presidential-memorandum-federal-leadership-energy-management
82 Ceres, Power Forward: Why the World’s Largest Companies Are Investing in Renewable Energy, pg. 16
entity has U.S. source active income if the income is “effectively connected” to a U.S. trade or business (“ECI”).

A foreign entity has U.S. source passive income if the income is interest, dividends, rents, salaries, wages and other fixed or determinable annual periodic income (“FDAP” income).

Passive income, however, can be transformed into income that is effectively connected to a U.S. trade or business. This would affect whether the ITC could be used or not. The investment in the renewable project would be passive but the foreign corporation may not have passive taxable income if the FDAP is transformed into ECI, rendering the ECI useless for the year at issue (assuming there was no other passive income for the ITC to offset). There are two tests that are used to determine if the FDAP income becomes ECI: the asset-use test and the business-activities test.

The asset-use test tells us “whether the income, gain, or loss is derived from assets used in, or held for use in, the conduct of the trade or business in the United States.” The business-activities test tells us “whether the activities of the trade or business conducted in the United States were a material factor in the realization of the income, gain, or loss.”

Without passive income as a result of the asset-use or business-activities test transforming FDAP into ECI it seems unlikely to me that foreign companies would invest in renewable projects for the lack of current ITC utilization (assuming the multinational has no other U.S. source passive taxable income). If the multinational were to invest in this scenario, the multinational would then need to engage in foreign tax planning and generate passive income.

87 Treasury Regulation 1.864-4 (c)
88 Treasury Regulation 1.864-4 (c)
89 Treasury Regulation 1.864-4 (c)
90 Treasury Regulation 1.864-4 (c)
in the future to use the ITC. The ITC can carry forward twenty years.\textsuperscript{91} It appears more probable, though, that without current use of the ITC the foreign multinational will not invest. However, the companies that are capable of investing in renewable projects are likely to be large multinational companies and it is probable that these companies have U.S. source passive income and this will not be an issue.

There is one last wrinkle to take note of. As stated earlier, renewable energy credits are mostly limited to offset taxes from passive taxable income because the investment is a passive activity. Although large financial institutions satisfy Publication 925’s “material participation” tests, the companies will have to satisfy these tests as well (i.e. an investor may not participate for more than one-hundred or five-hundred hours in the activity, depending on the circumstances).\textsuperscript{92}

c. Asset-Backed Securitization, REITs and MLPs

The second major way of broadening the investor pool is expanding investment opportunities to foreign and domestic corporations and smaller investors by using renewable-based asset-backed securitization, REITs and MLPs. I will begin with asset-backed securitization.

d. Asset-Backed Securitization

Asset-backed securitization “refers to a process whereby receivables, loans or other predictable forms of cash flows are pooled and sold to investors through one or more special purpose vehicles (‘SPV’) in the form of debt instruments called asset-backed securities or … commercial paper.”\textsuperscript{93} This means that assets are pooled or bundled together into a special

\textsuperscript{92} IRS Publication 925
\textsuperscript{93} Treatise: Securitizations: Legal & Regulatory Issues (LJP) Chapter 1: Introduction
purpose vehicle ("SPV"). The SPV can be a trust, corporation or limited liability company (LLC), with the most efficient being the trust or LLC. Then, the SPV markets securities to investors that are backed by these assets in the SPV. The pooled assets produce a stream of income to investors through the security. The purpose of this is two-fold: 1) risk is reduced to the investor because multiple assets are pooled together, like a mutual fund; and 2) assets that are usually illiquid are transformed into a liquid security that can be sold to investors.

As applied to renewable energy, a pool of renewable energy developments would back the security. The asset-backed security would not replace the ITC but would supplement the ITC. Investments in asset-backed securities do not result in a credit. It is a straight investment in a security for a rate of return. Companies/institutions would engage in each type of transaction/investment for different purposes. For a company that needs deductions and tax credits the company would directly invest into the renewable energy project. For companies that want a steady rate of return from a security, where there is no credit or deduction as a result of the investment, the asset-backed security is a solid option.

Moreover, the renewable-based asset-backed security may provide an increase in investment to renewable energy projects because it allows companies to invest in renewable energy developments without the risk of direct on-site investment. Companies may not otherwise invest in renewable energy because on-site investment can be risky to an investor because the investor is only investing in one particular project. There is no guarantee of success

94 Treatise: Securitizations § 5.01
95 Treatise: Securitizations § 28.03
96 Treatise: Securitizations § 5.01
97 Treatise: Securitizations § 5.01
100 Ceres, Power Forward: Why the World’s Largest Companies Are Investing in Renewable Energy, pg. 24
or income. There is also no guarantee that the project will be placed in service on time for the investor to take advantage of the ITC. Lastly, the investor needs enough taxes from passive taxable income to offset the ITC with. In contrast, the asset-backed security absolves much of this risk because the security is backed by a pool of assets. The investor does not need to worry about offsetting taxes from passive taxable income. Instead, the investor would receive a rate of return on the security and would still be able to contribute to United States’ and worldwide investment goals into renewable energy projects.

In terms of the investor demographic, investors of asset-backed securities are typically institutional investors. Therefore, the asset-backed security accomplishes the objective of increasing investment by foreign and domestic corporations. Moreover, the foreign corporations do not need to worry about FDAP and ECI distinctions because the investment is made purely for a rate of return. These institutional investors use the securities to diversify their portfolio and receive a higher yield than government bonds. Additionally, the securities are available to smaller investors as well. The asset-backed security, therefore, increases investment in renewable energy developments in two ways: 1) through institutional investors that want to avoid the risk of direct on-site renewable investment but still want to get involved in the renewable energy field; and 2) provides smaller investors a chance to invest who otherwise would be cut out from the field.

e. **REIT’s**

The U.S. Securities and Exchange Commission ("SEC") defines a REIT as a “company

\[\begin{array}{l}
\text{ http://www.forbes.com/sites/investopedia/2013/01/18/introduction-to-asset-backed-and-mortgage-backed-securities/}
\text{ http://www.forbes.com/sites/investopedia/2013/01/18/introduction-to-asset-backed-and-mortgage-backed-securities/}
\text{ 102 Andrew C. Fink, Securitize Me: Stimulating Renewable Energy Financing by Embracing the Capital Markets,}
\text{ 12 U.N.H. L. Rev. 109, 123 (2014).}
\end{array}\]
that owns – and typically operates – income-producing real estate or real estate-related assets. REITs provide a way for individual investors to earn a share of the income produced through commercial real estate ownership – without actually having to go out and buy commercial real estate.”

The SEC notes that to qualify as a REIT:

“a company must have the bulk of its assets and income connected to real estate investment and must distribute at least 90 percent of its taxable income to shareholders annually in the form of dividends. In addition to paying out at least 90 percent of its taxable income annually in the form of shareholder dividends, a REIT must: 1) Be an entity that would be taxable as a corporation but for its REIT status; 2) Be managed by a board of directors or trustees; 3) Have shares that are fully transferable; 4) Have a minimum of 100 shareholders after its first year as a REIT; 5) Have no more than 50 percent of its shares held by five or fewer individuals during the last half of the taxable year; 6) Invest at least 75 percent of its total assets in real estate assets and cash; 7) Derive at least 75 percent of its gross income from real estate related sources, including rents from real property and interest on mortgages financing real property; 8) Derive at least 95 percent of its gross income from such real estate sources and dividends or interest from any source; and 9) Have no more than 25 percent of its assets consist of non-qualifying securities or stock in taxable REIT subsidiaries.”

104 http://www.sec.gov/answers/reits.htm; see also 26 CFR 1.856-1
105 http://www.sec.gov/answers/reits.htm; see also 26 CFR 1.856-1
A REIT can be public or private. Public REITs offer investors liquidity, and private REITs can be difficult to exit because “new money has to come in before cash is available for a payout.” Public REIT’s, therefore, are a better option for large companies to balance a portfolio. The REIT utilizes securitization because assets (i.e. real estate) are pooled together in a trust and shares are issued out that pay dividends to the investors. Because of securitization risk in the investment is reduced—similar to the effect a mutual fund has.

“All individual may invest in a publicly traded REIT, which is listed on a major stock exchange, by purchasing shares through a securities dealer.” Investors may purchase common stock, preferred stock or debt securities. Investors can also diversify their investment portfolio by buying shares in a REIT mutual fund or exchange-traded fund. Both institutional and small investors have equal opportunities to buy these shares because REIT shares average from $10 to $60 a share. “This means is the little guy can get a piece of the action.” Similar to the asset-backed security, a REIT comprised of renewable energy developments would allow domestic and foreign companies an option to invest in renewable projects, as opposed to

REIT’s invest in different property types, such as residential, industrial and health care, but there is a limit to the extent that the REIT can be comprised of a renewable energy project. The IRS does not currently consider renewable energy projects “real estate,” therefore, a REIT cannot consist of more than twenty-five percent of renewable energy projects. Moreover, because ninety-five percent of income must be derived from “real estate,” only five percent of income can be derived from the renewable energy project.

In all, only twenty-five percent of the REIT can be comprised of renewable energy projects, only five percent of income can be derived from the renewable energy project and small and large investors alike can purchase publically traded REIT shares. Like the asset-backed securities, the REIT is not a replacement of the ITC. The REIT is a supplement to the ITC in terms of incentives for renewable energy investment. As described earlier, the REIT and ITC perform different functions (credit/deductions v. capital returns in the form of dividends), and therefore, they each attract investors based on different investment objectives.

It is unclear what effect it would have if the IRS were to interpret renewable energy projects as “real estate” for REIT purposes. Some believe that the IRS will not take this type of “rifle-shot approach.” If the IRS did make such an interpretation, the REIT structure would become a very attractive method for small investors to get involved in the renewable energy

118 Tax Notes: IRS Not Expected to Allow REITs To Invest in Renewable Energy
investment world because the REIT shares are priced at reasonable levels and the investors receive most of the income in the form of a dividend.

f. MLPs

“A master limited partnership (MLP) is a type of business structure that is taxed as a partnership, but whose ownership interests are traded on financial markets like corporate stock.”119 Because the MLP is structured as a partnership there is only one level of tax—at the partner level. The ownership interest in an MLP is not stock, but is called an “MLP unit.”120 Like corporate stock, the units are publically traded and pay dividends.121 The partners/MLP investors also receive their share of the “partnership’s income, deductions, and credits, and pay tax on the net income according to ordinary income tax rate.”122 MLP units are attractive to investors because unlike the corporate double-level tax there is only one level of tax in a partnership (to the partners/investors), and therefore, the investors yield higher after-tax returns.123

In terms of structure, MLPs generally own and operate their business assets through a subsidiary or operating company.124 The MLP is formed as a limited partnership, meaning that there is a general partner and many limited partners.125 The limited partners (LPs) provide most of the capital to the MLP in exchange for the MLP units.126 A brief discussion into partnership tax law is necessary here to understand the inter-workings of being a partner and also the difference of being a limited partner versus a general partner.

The first step is that a partner contributes property to a partnership, such as cash in this case, and receives an interest in the partnership, the MLP unit here. The partner and the partnership each receive a transfer basis in the partnership interest and asset, respectively. The partner’s capital contribution is placed as an asset on the partnership’s balance sheet. For the partnership’s balance sheet: Assets = Liabilities + Equity. Therefore, the capital contribution is also placed as the partner’s equity amount (called the partner’s capital account). This capital contribution amount will also constitute a portion of the partner’s outside basis in the partnership (and it will constitute all of the basis if the partnership does not assume any liabilities or if there is not any debt relief.)

The advantage of being a LP is that the liability the LP takes on is limited to the LP’s capital contribution, or, in other cases, the capital contribution plus an additional amount (called the deficit restoration obligation “DRO”). If the LP’s capital account is reduced below zero as a result of losses and deductions, meaning the partner “owes” the partnership money, and the allocations are sustained because they have substantial economic effect, then the LP does not owe any money beyond the DRO amount if the partnership terminates/is sold because the LP is only liable to the capital contribution amount plus the DRO.

The general partner (GP), who can be a single person, parent company or group of individuals, manages the MLP in exchange for a percentage of the MLP’s income, which is typically two percent. This percentage right is called the “incentive distribution right.”

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129 Treasury Regulation 1.704-1(b)(2)
This payment is to compensate the GP for taking on risks and to maximize return to investors.\(^{133}\)

The GP takes on risk because if the partnership terminates/is sold and there is no value left in the partnership, but the GP has a positive capital account balance (meaning the GP should get some money), the GP may not get anything if the LP’s do not have a deficit restoration obligation.\(^{134}\)

The income, losses, deductions and credits generated from an MLP unit are passive.\(^{135}\)

Because the structure is a partnership, the income, losses, etc. flow through to the partners, i.e. to the investors who own the MLP units by their distributive share. Therefore, the investor can only use the credit to offset taxes from passive taxable income, which is similar to direct on-site investment that generates an ITC. What is unique about the MLP is that the cash distributions are only taxed once the MLP unit is sold and the cash distributions are generally taxed at capital gain rates.\(^{136}\)

For renewable energy to enter the MLP field, income from renewable energy projects must be considered “qualifying income.” Currently, the MLP structure requires that:

“To be an MLP at least 90% of a business’s gross income must be considered ‘qualifying income.’ Qualifying income generally includes dividends, interest, rents, capital gains, and mining and natural resource income. Income related to the exploration, development, mining or production, processing, refining, transportation, storage, and marketing of any mineral or natural resource falls under the latter income category. Recently, the definition of qualifying income was expanded. The expanded definition includes income from the transportation and storage of certain renewable and alternative fuels, including ethanol and

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\(^{134}\) Treasury Regulations: 1.704-1(b)(2)(ii)(a); 1.704-1(b)(3)(iii)(c); 1.704-1(b)(2)(iii)(d)


biodiesel, and activities involving industrial source carbon dioxide.”

Currently, Senator Christopher A. Coons, Democrat-Delaware, has proposed legislation, the Master Limited Partnerships Parity Act (S. 795), that would allow renewable energy investors to form MLPs. Extending the definition of “qualified income” to renewable energy would increase investment in renewable projects because there is a higher rate of return in MLP units compared to corporate shares since there is only one level of tax in partnership structures. Both large institutions and small investors would be able to invest in the MLP, thus further expanding the renewable energy investor base. Like the asset-backed security and REIT the MLP does not replace the ITC but rather works in conjunction with the credit because it targets different investors/investment purposes.

However, the MLP appears more limited in its application than asset-backed securities or REITs. Although the MLP offers a security in the form of an MLP unit, the MLP features look very much like direct on-site investment because the investor receives an allocable share of income, loss, deductions and credits. Because the investment in the MLP unit is passive, like direct on-site investment to get an ITC, the allocable share of losses and credits are limited by passive rules. The major differences of course being: 1) that the investor can buy “unit” shares instead of providing a lot of capital directly into the project; and 2) the risk is reduced because the MLP unit is securitized through multiple renewable assets as opposed to investing in one particular project. Thus, the investor base for MLP units may be smaller than asset-based securities or REITs if the purpose for the investment is largely to receive losses, deductions and credits on a smaller scale than direct on-site investment. On the other hand, the MLP unit does offer an allocable share of income, prospect for “unit” appreciation and reduces risk through

138 Tax Notes: IRS Not Expected to Allow REITs To Invest in Renewable Energy
IV. Conclusion

The ITC currently allows for a 30% or 10% credit, based on what renewable energy project being placed in service, up until 2017. At that time, the percentages will decrease or completely eliminate for certain types of renewable projects. Although I think this reduction is a mistake, there are other ways the United States can facilitate renewable energy investment from foreign and domestic corporations and smaller investors. These include encouraging investment from large corporations and pressuring them to make long-term investment commitments and allowing renewable-based asset-backed securities, REITs and MLPs. The asset-backed securities, REITs and MLPs provide an investment alternative to investors other than investing directly on-site. These alternatives also provide less risk to the investors.

Although these alternatives will not currently replace the ITC, they may replace the ITC in 2017 when the credit percentages drop or completely eliminate. The effect of this replacement possibility is unknown. Perhaps the amount of investment by financial institutions will decline. More probable, however, is that the financial institutions will instead invest in an MLP, for example, instead of investing a lot of money into one particular project. This is because the MLP still offers an allocable share of income, losses, deductions and credits along with risk reduction.

In the near future, the majority of renewable energy investments may come through securities as opposed to direct on-site investments. The effect that this will have on the renewable energy field is a question for the legislators to consider. If the effect is negative, legislators may want to re-consider extending the credits to work in conjunction with the alternative investment methods. I think this compilation of investment strategies would satisfy
all investor needs, institutional and individual, domestic and foreign, and has the greatest potential for renewable investment growth.