Basics of Renewable Energy Tax Equity

American Bar Association Section of Taxation
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Agenda

1. Tax credits for the renewable industry
   • Investment Tax Credit
   • Production Tax Credit

2. Tax equity investing

3. Commonly used structures
   o Sale – leaseback
   o Partnership flip
   o Inverted lease

4. Current trends / future
What is a tax credit?

Dollar for dollar reduction in federal tax liability

$1 tax credit is $1 less of taxes which need to be paid to the government

What credits are available to renewable energy property?

Investment tax credit (IRC Section 48)

Production tax credit (IRC Section 45)
Renewable energy tax credits

- **Investment Tax Credit (ITC)**
  - Investment-based
  - Dollars spent on eligible property multiplied by applicable energy percentage

- **Production Tax Credit (PTC)**
  - Production-based
  - kWh produced and sold to an unrelated third party multiplied by a specified credit rate

- **Both the ITC and PTC are General Business Credits under Section 38**
  - Must be used in a trade or business
    - Energy used onsite to offset load of taxpayer claiming credit (ITC only);
    - Third party ownership structures
      - Sale of power pursuant to a power purchase agreement (PPA)
      - Lease of system to end user
Investment Tax Credit (ITC)
Types of energy property eligible for ITCs

- Solar Energy Property
- Fuel Cells
- Combined Heat and Power Systems
- Small Wind (turbines less than 100kW)
- Qualified Microturbine Property
Eligibility for ITC

- In order to be eligible for the ITC, the energy property must:
  1. Be depreciable or amortizable;
  2. Have an estimated life in excess of 3 years; and
  3. Be tangible personal property or other property if such property is *used as an integral part in the production of electricity*

- Claiming the ITC
  - **To claim the ITC, you must be an owner (or lessee) of the ITC property on the property’s placed-in service date**
    - Special rule for sale leaseback transaction (3 month window to transfer asset to investor and lease back)
  - Because of this rule, ITCs cannot be “sold” to third parties which do not have an interest in the project
    - Allocated to members based on general profits allocation
ITC is an investment-based credit

- The credit is based on dollars spent on eligible property, multiplied by a specified percentage.

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Energy Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>30%</td>
</tr>
<tr>
<td>Fuel Cells</td>
<td>30%</td>
</tr>
<tr>
<td>Small Wind</td>
<td>30%</td>
</tr>
<tr>
<td>Combined Heat and Power</td>
<td>10%</td>
</tr>
<tr>
<td>Microturbines</td>
<td>10%</td>
</tr>
</tbody>
</table>

Special rules:

- Solar: Gradual phasedown of credit to 10% in 2024
- Fuel Cell: Credit limited to $3,000 per kw of capacity
- Microturbine: Credit limited to $200 per kw of capacity
When is the ITC calculated?

- The ITC is generated 100% on the project’s placed in service date
  - Vests 20% per year
- When is a project considered placed in service
  - Condition or state of readiness and availability for its specifically assigned function;
  - All necessary permits and licenses received (PTO);
  - Synchronization into power grid; and
  - Completion of critical tests
ITC recapture

- The ITC has a 5-year recapture period. Recapture occurs if:
  - The property ceases to qualify as energy property, or
  - There is a disposition of the property or an interest in the property during the recapture period
  - Reduction in allocable share of profits by 1/3 will also create ITC recapture
    - Also, transfers in substituted basis transactions

100% of credits

5-year recapture period

PIS date

80% 60% 40% 20%
Production Tax Credit (PTC)
Production tax credit

- Rules set forth in Section 45 of the Internal Revenue Code
- 10-year production-based credit
- Similar to the ITC, the PTC varies by technology
- Property eligible for the PTC includes:
  - Wind
  - Open-loop biomass
  - Closed-loop biomass
  - Geothermal
  - Small irrigation
  - Municipal solid waste
  - Marine and hydrokinetic
  - Hydropower
How much is the PTC?

- PTC was 1.5 cents/kWh
  - Annually adjusted, rounded to nearest 0.1 cent
  - Certain property provided a smaller PTC (50%)

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Price per kWh (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>$0.024</td>
</tr>
<tr>
<td>Closed-loop biomass</td>
<td>$0.024</td>
</tr>
<tr>
<td>Open-loop biomass</td>
<td>$0.012</td>
</tr>
<tr>
<td>Geothermal</td>
<td>$0.024</td>
</tr>
<tr>
<td>Municipal Solid Waste</td>
<td>$0.012</td>
</tr>
<tr>
<td>Marine and Hydrokinetic</td>
<td>$0.012</td>
</tr>
<tr>
<td>Hydropower</td>
<td>$0.012</td>
</tr>
</tbody>
</table>
PTC – basic rules and expiration

- Unlike the ITC, in order to be eligible for the PTC, electricity produced must be produced \textit{and sold by the taxpayer to an unrelated third party}.
- No recapture of credit if property is sold or ceases production.
- No basis reduction (100% of asset basis is depreciated).
- In order to be eligible for the PTC, a taxpayer must begin construction on the project by a specified date:

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Construction must begin before</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>1/1/2020</td>
</tr>
<tr>
<td>Closed-loop biomass</td>
<td>1/1/2018</td>
</tr>
<tr>
<td>Open-loop biomass</td>
<td>1/1/2018</td>
</tr>
<tr>
<td>Geothermal</td>
<td>1/1/2018</td>
</tr>
<tr>
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<td>1/1/2018</td>
</tr>
<tr>
<td>Marine and Hydrokinetic</td>
<td>1/1/2018</td>
</tr>
<tr>
<td>Hydropower</td>
<td>1/1/2018</td>
</tr>
</tbody>
</table>
Notice 2013-29 – “begin construction”

- Provides two methods to establish construction has begun
  1. By starting physical work of a significant nature, or
  2. By meeting a safe harbor
- Continuity Requirement
  - Initially deemed to be satisfied if the project was in service within 2 years of the begun construction deadline
  - Extended via 2017-04 to the later of four years from the calendar year when construction began, or December 31, 2018

1. **Physical work of a significant nature:**
   - Includes work performed by the taxpayer and work performed for the taxpayer under a binding contract – ex: excavation for foundation, pouring concrete pads
   - Does not include preliminary activities – ex: planning, designing, exploring, obtaining permits, etc.

2. **Safe harbor - construction will be considered to have begun if the taxpayer pays or incurs more than 5% of the total cost of the facility**
   - Does not include land or property that is not integral
   - Costs incurred by others is ok if pursuant to a binding written contract
PTC phaseout for wind

Wind facilities have a gradual phaseout of the PTC as follows:

<table>
<thead>
<tr>
<th>If construction begins after...</th>
<th>and before...</th>
<th>the PTC allowable is reduced by</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2015</td>
<td>1/1/2017</td>
<td>0%</td>
</tr>
<tr>
<td>12/31/2016</td>
<td>1/1/2018</td>
<td>20%</td>
</tr>
<tr>
<td>12/31/2017</td>
<td>1/1/2019</td>
<td>40%</td>
</tr>
<tr>
<td>12/31/2018</td>
<td>1/1/2020</td>
<td>60%</td>
</tr>
</tbody>
</table>
Election to claim ITCs

- A taxpayer may elect to claim a 30% ITC in lieu of a PTC for any property which is eligible for the PTC
  - Notice 2009-52 provides instructions on making the election
  - Wind facilities have a gradual phaseout of the 30% investment tax credit consistent with the PTC phaseout for wind
- Wind facilities which a taxpayer elects to claim an ITC on have a gradual phaseout of the 30% ITC as follows:

<table>
<thead>
<tr>
<th>If construction begins after...</th>
<th>and before...</th>
<th>the resulting energy percentage is</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2015</td>
<td>1/1/2017</td>
<td>30%</td>
</tr>
<tr>
<td>12/31/2016</td>
<td>1/1/2018</td>
<td>24%</td>
</tr>
<tr>
<td>12/31/2017</td>
<td>1/1/2019</td>
<td>18%</td>
</tr>
<tr>
<td>12/31/2018</td>
<td>1/1/2020</td>
<td>12%</td>
</tr>
</tbody>
</table>
ITC or PTC – project considerations

**ITC likely makes sense for...**

- Smaller projects with less economies of scale or a higher proportion of eligible costs

**PTC likely makes sense for...**

- Larger projects with a lower cost per installed MW
- Projects in windy areas with a higher capacity factor
Tax Equity Investing
Overview – tax equity

- Renewable energy has been promoted by Congress using tax credits
- Tax equity investor provides long-term financing in exchange for cash flow, federal incentives (ITC, PTC) and depreciation
- Larger tax appetite
  - Absorbs tax benefits project developer/sponsor does not want/cannot use
  - Private equity funds may not have as large a tax appetite and would most likely require a greater portion of ongoing cash flow
- Why corporate investors?
  - Passive Loss Limitations for Individuals – N/A for Corporations
    - Similar for “at risk” basis
  - Easier Access to Capital – existing tax credit investment entities (CDCs)
The benefits for tax equity investors

1. **Cash**
   - Rebates and RECs

2. **Tax credit**
   - Investment Tax Credit (ITC)
   - Production Tax Credit (PTC)

3. **Losses (depreciation)**
   - Depreciation
     - Property must be depreciable in order to be eligible for tax credits
     - Most energy property depreciated using 5-year MACRS
   - Bonus Depreciation
     - 100% expensing for property acquired and placed in service after 9/27/17 and before Jan 1, 2023, followed by a phase out in years 2023-2026 of 20% per year
Project ownership fundamentals

- Understand your tax appetite
  - Can you monetize the tax benefits?
    - Passive income to offset passive credits and losses
  - Is there a need for tax equity?
- Understand the requirement of debt and equity providers
  - Structuring requirements
  - Hedges for uncontracted cash flows
Investor considerations

- Both the ITC and PTC are subject to the passive activity and at-risk rules
  - Applies to individuals and closely-held corporations
    - Passive activity rules – limits use of losses and credits generated from passive activities to other passive income
    - At-risk rules – limits deductibility of losses to amounts considered “at-risk”

- Potential application of common law doctrines —
  - Economic substance
  - Substance-over-form
  - Step transaction
Key transaction participants
Capital stack – debt

- Debt amount sized based on free cash flow available to pay debt service
- Debt terms typically no longer than 2 years less than contracted cash flow
- Multiple levels of debt common
- Mini perm loans to cover state incentive period
- Debt coverage ratios range between 1.20 and 1.50 depending on lender
- Rates vary
- Forbearance agreements important for first 5 years to avoid recapture
Capital stack – tax credit investor equity

- Initial capital contribution sized based on present value of future expected benefits, discounted back at hurdle rate
- May be reflected as a price per credit allocated
- PTC – fund at COD
- ITC - tax equity usually funds at the mechanical completion date (20%) and then at COD (80%)
- Preferred return typically required in order to receive “cash on cash” return / economic return
Capital stack – sponsor equity

- Fills gap between project costs and funds available from tax equity contributions and debt proceeds
- Likely for contribution to occur during construction
  - Investors and lenders want sponsor to have skin in the game and want to delay their own contributions
- Additional sponsor equity may come in form of cash or deferred developer fee/deferred purchase price, depending on structure
Length of investment and exit

- Tax Credit Recapture Period
- Call Options?
- Put Options?
- Withdrawal Options
Most common transaction structures

1. **Sale-leaseback** – used for equipment leasing

2. **Partnership flip** – often used where the developer’s interest starts at 1% and flips up once the investor has achieved a yield hurdle or a specific pre-determined date or condition occurs

3. **Inverted lease** (or lease pass-through) – also, plain old 100% facility ownership
Sale - Leaseback
Sale-leaseback – steps

**Steps:**
1. Project Developer first locates a customer, then signs an agreement for services.
2. Project developer builds the system.
3. Project Developer sells the system to the Tax Equity Investor.
4. Project Developer then leases the system from the Tax Equity Investor.
   - Project developer incurs all costs of operations.
   - At the end of the project, Project Developer may purchase the project or extend the lease.

**Benefits:**
1. Tax credits
2. Depreciation
3. Cash flow
Project developer considerations

- One major advantage of the sale leaseback structure is that the investor finances the cost of the project via its purchase price:
  - Developer may need to contribute capital during construction to fund progress payments to EPC.
  - A portion of the margin collected by the developer may need to be remitted to the investor in the form of a lease prepayment.
  - Sale leasebacks generally require the least developer/spoarer equity, compared to other structures.
Tax equity investor considerations

- Sale leaseback transactions generally require the most investor equity, compared to other structures
  - Investor pays developer 100% of purchase price when asset is transferred
    - A portion of investment may be returned if developer required to make a master lease prepayment
  - Typically, investor will have access to debt to finance a portion of the purchase price
    - Typically, the amount of debt the investor uses will not be known to the sponsor, thus, therefore the developer can sometimes be in the dark to the true yield of the investor
Lease dynamics

Term:
- The lease term in a sale leaseback transaction will exceed the 5-year recapture period of the ITC
  - Higher investor purchase price requires longer investment horizon to reach required yield
- Lease terms of 10-15 years common
  - At end of lease term, developer may have option to purchase project or extend master lease
  - Early buyout options possible

Payments
- Transaction requires annual fixed lease payments to be made from developer to investor
- Investor may require master lease prepayment in order for developer to “leave skin in the game”
  - If no prepayment is required, the investor will generally require higher annual lease payments.
- Investors will generally use a lease optimization model to maximize lease payments
Other rules

- **Pass-through of ITC**
  - Upon election, the owner of ITC property may pass-through the ITC to a lessee
  - When ITC is passed-through, the basis claimed by the lessee is equal to the fair market value

- **ITC Basis Reduction**
  - The depreciable basis of ITC property is reduced by 50% of the ITC claimed on such property
  - Exception of structures where the ITC is passed through to a lessee
# Sale-leaseback – advantages/disadvantages

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to provide 100% project financing</td>
<td>Not available for PTC transactions</td>
</tr>
<tr>
<td>90-day window to get investor into the deal</td>
<td>In a partnership flip, the investor’s interest is typically 5% when the buyout occurs. In a sale leaseback, the developer must repurchase 100% of the project at fair market value</td>
</tr>
<tr>
<td>after placed-in service date</td>
<td></td>
</tr>
<tr>
<td>Structure investors are familiar with</td>
<td>Stringent agreements between investor and developer in order to protect investor</td>
</tr>
<tr>
<td></td>
<td>▪ Fixed rent schedule</td>
</tr>
<tr>
<td></td>
<td>▪ Various indemnifications and guarantees</td>
</tr>
<tr>
<td>100% of tax benefits absorbed by investor.</td>
<td></td>
</tr>
<tr>
<td>▪ No leakage of benefits to sponsor as in a partnership flip</td>
<td></td>
</tr>
<tr>
<td>Developer has ability to collect 100% of margin up front in some instances</td>
<td></td>
</tr>
<tr>
<td>▪ No deferred fees as in a partnership flip</td>
<td></td>
</tr>
</tbody>
</table>
Partnership Flip
Partnership flip – features

**Features:**
1. Capital infusion – Project Developer (60%) and Tax Equity Investor (40%)
2. LLC constructs the Project
3. Customers make payments for the power services
4. Prior to the “flip” the LLC distributes:
   - 99% profits/losses, most of the tax credits, and some cash to the Tax Equity Investor
   - 1% of profits/losses, remaining tax credits, and all remainder of cash to Project Developer
The “flip”

What is the “flip”:
- The "flip" refers to the change in allocations of profit/losses, cash, and tax credits between the Project Developer and the Tax Equity Investor once the Tax Equity Investor reaches its target yield or a predetermined date or condition has been met.
- The flip cannot happen before the end of 5 years or some of the ITCs will be recaptured.
- After the flip, the Project Developer will usually have the option to buy out the Tax Equity Investor.

Post-Flip Allocation

Allocation:
1. 95% profit/loss
2. Majority of ITCs
3. Residual cash

Allocation:
1. 5% profit/loss
2. Residual ITCs
3. Majority of cash

Sponsor

Project Developer

Tax Equity Investor

Partnership
Revenue procedure 2007-65

- Safe harbor issued by the IRS
  - Only applies to wind, but used as a point of reference for other technologies as well
  - “Blesses” the partnership flip structure
  - Sets forth the minimum allocations of partnership items to partners owning a wind facility
  - Gives guidance on structuring investor buyout
- However, See CCA 201524024
  - Rev. Proc. 2007-65 does not apply to section 48 credits
Typical distribution waterfall

Cash from operations is used in the following order:

1. Payment of operating expenses
2. Payment of debt service
3. Payment of investor preferred return
4. Payment of any deferred developer fee or Sponsor return of capital
5. Distribution of remaining free cash flow to members in accordance with partnership interest (allocation typically negotiable and can be different from 99/1 income allocation)
## Partnership flip – advantages/disadvantages

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>The simplest structure to document (Closes Quicker, Lower Transaction Costs)</td>
<td>Can be less efficient than a sale-leaseback</td>
</tr>
<tr>
<td></td>
<td>• Sponsor will generally have to contribute equity</td>
</tr>
<tr>
<td></td>
<td>• Portion of losses and credits typically allocated to sponsor</td>
</tr>
<tr>
<td>At least in theory monetizes all (or at least 99% of) the benefits which a</td>
<td>GAAP treatment is complicated (HLBV!)</td>
</tr>
<tr>
<td>developer cannot use itself</td>
<td></td>
</tr>
<tr>
<td>Generally uses fees and/or return of capital to pay a negotiated portion of</td>
<td>Sponsor must have cash to purchase investor interest</td>
</tr>
<tr>
<td>the operating revenues received to the developer</td>
<td></td>
</tr>
<tr>
<td>Most efficient for a developer who wants to get rid of the tax equity</td>
<td>Will result in taxable gain if assets are sold into the fund (instead of</td>
</tr>
<tr>
<td>investor as quickly as possible</td>
<td>constructed/installed by the fund)</td>
</tr>
</tbody>
</table>

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Variations of partnership flips

- PAYGO structure – more common for PTC deals. Investor equity contributed in multiple tranches over period PTC is earned
- Fixed flip date – flip based on fixed point of time, occurring after recapture period
- Yield-based flip – flip occurs once yield is reached
- Multiple flip structure (less common)
Inverted Lease
**Inverted lease – features**

**Features:**
1. Tax Equity Investor leases the systems from the Project Developer
2. Tax Equity Investor makes agreement to provide services with Customer
3. Customer pays the Tax Equity Investor for services and Tax Equity Investor pays the Project Developer
   - Tax Equity Investor can take 100% of the ITCs
Inverted lease – partnership variation

Considerations:
1. Owner/Lessor owns the Project for tax purposes based on a long-term lease
2. Owner passes tax credits to Operator. Operator passes tax credits to the Tax Equity Investor
3. Operator agrees with Project Developer and receives payments under operating/management agreement
Rev. Proc. 2014-12 – safe harbor

- If the investor invests in a Master Tenant (Operator/Lessee) partnership, the investor can only invest in the Owner partnership indirectly through the Master Tenant partnership.

- This prohibition does not apply to a separately negotiated, distinct economic arrangement (e.g., a separate arm’s length investment into the Owner partnership to share in allocations of federal new markets tax credits or low income housing tax credits).

- **Maximum allocation**: 99% Investor

- **Minimum allocation**: 4.95% Investor (assuming investor receives 99% loss allocation; rule is 5% of highest share)
Investor must make a bona fide equity investment

The value of the investor’s partnership interest may not be reduced through unreasonable fees, lease terms, or other arrangements as compared to fees, terms, or other arrangements for noncredit projects. Certain arrangements are deemed per se unreasonable including certain forms of subleasing.

20% minimum investor unconditional investment

75% of the investor’s total expected capital contributions must be fixed in amount

Guarantees – only certain unfunded guarantees are permitted

No developer or partnership loans to investor

Limitations on call options and put option exercise

Allocations in the partnership agreement must satisfy 704(b)
Inverted lease – tax considerations

- Look for all issues present in Partnership Flip and Lease deals
  - While partnership flip deals and sale leaseback deals tend not to deviate very far from the relevant Revenue Procedures, relatively higher levels of deviation are seen with inverted lease deals.

- Many inverted lease deals have both developer call options and investor put options. Close scrutiny should be placed on the economic compulsion/reasonable likelihood of exercise analysis.

- Pay close attention to economic substance
  - Hard to analyze given the complex structure, but should be addressed in a tax opinion. Typically proven by demonstrating cash-on-cash return/pre-tax profit (counting credits as cash).
  - Check for pre-tax returns in all possible scenarios (e.g., exits via purchase/sale options), not just full-term.
More tax and business considerations

Other tax considerations

- When passed through, ITC based on “fair market value of property” per Treasury Regulation
  - An appraisal of eligible property is very important in this structure to support ITC claim
- Treatment of lease prepayments (IRC Section 467)
- Treatment of income received by sponsor (IRC Section 469)
- Length of lease

Other business considerations

- Will sponsor have cash to buyout investor
- Mismatch of cash received and tax liability in non-partnership structure
- Will sponsor be able to utilize depreciation as generated
# Inverted lease – advantages/disadvantages

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis step up without gain and resulting tax</td>
<td>Can be complex and more expensive than other structures</td>
</tr>
<tr>
<td>Structural flexibility</td>
<td>Can be more difficult to leverage</td>
</tr>
<tr>
<td>Bifurcation of credits</td>
<td>Can be difficult to use for large-scale projects</td>
</tr>
<tr>
<td>- State credits</td>
<td></td>
</tr>
<tr>
<td>- Twinning transactions</td>
<td></td>
</tr>
<tr>
<td>Ability for clean exit – lease ends after a</td>
<td>Some investors not comfortable with structure</td>
</tr>
<tr>
<td>set number of years</td>
<td></td>
</tr>
</tbody>
</table>
Current trends

- Liquidity continues to be a focus
  - Asset sales
  - Monetization of sponsor equity positions
    - Sale of all or a portion of sponsor equity positions
    - Leveraging sponsor equity positions through joint ventures
  - Residual value – the only way to “win” deals
    - How to estimate post contracted cash flows?
    - Shorter tenure PPAs are more valuable?

- What’s the future of Renewable Energy Tax Equity?