Tribal Roles in Renewable Energy Projects

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National Renewable Energy Laboratory
Federal Tax Incentives

- Production Tax Credit (PTC)
- Investment Tax Credit (ITC)
- Modified Accelerated Cost Recovery System (MACRS) and bonus depreciation
## Comparison of Tax Incentives

<table>
<thead>
<tr>
<th></th>
<th>PTC</th>
<th>ITC</th>
<th>Accelerated Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td>Tax credit of 2.3¢/kWh or 1.1¢/kWh, depending on tech</td>
<td>Tax credit of 10% or 30% of project costs, depending on tech</td>
<td>Depreciation of eligible costs (not all project costs qualify)</td>
</tr>
</tbody>
</table>
| **Select Qualifying Technologies** | • Wind  
• Geothermal  
• Biomass  
• Hydro | • Solar  
• Fuel cells  
• Small wind  
• Geothermal | Depreciation can be taken with either PTC or ITC |
| **Basis**      | Energy produced over 10-year period. Can be combined with depreciation. | Eligible project cost. Credit taken at the time the project is placed in service. Can be combined with depreciation. | **MACRS**: 5-year depreciation schedule  
**Bonus**: 50% first year accelerated depreciation on equipment |
| **Expiration** | Start construction before 1/1/2014                        | Placed in service before 1/1/2017*                        | **MACRS**: None  
**Bonus**: 1/1/2014 |
Tribal Role Options

- **Project Operator/O&M**
- **Equity Investor/Generation Equipment Owner**
- **Lender/Debt Provider**
- **Off-taker (Power Purchaser/User)**
- **Renewable Resource/Land Owner/Land Lessor*”**
- **Tribal Role Options**

* Also called Tribal Host
PPA or Lease

- Host
- Site Access
- Rent/Royalties
- Project
- O&M
- Off-taker

- Tax-Equity Investor
- Lender/Capital Provider
- Corporations
- Project Company/Pass-Through Entity
- Tax Equity
- Potential Tribal Role

$ Rent/Royalties

Capital

Revenue and/or Tax Benefits

$ Electricity Sales (PPA) or Lease

Revenue and/or Tax Benefits

Capital

$ Rent/Royalties

Project

Host

Site Access

Rent/Royalties

$
Advantages:

• No or Low up-front costs
• No O&M costs
• Save on electricity costs (as Off-taker) or gain revenue from rents and/or royalties (as Host)
• Likely purchase option at Fair Market Value at end of PPA/Lease

Challenges:

• No certain ownership role from beginning
• No control of asset during PPA/Lease term
Partnership Flip

- **Manager / General Partner**: 1% pre / 95% post
- **Limited Partner**: 99% pre / 5% post
- **Developer**: Manager / General Partner
- **Tax Equity Investor**: Limited Partner
- **Host**: Project Company
- **Off-taker**: Project Company
- **Project Company/Pass-Through Entity**
- **Corporations**
- **Potential Tribal Role**
Partnership Flip Cash Flow, No Debt

Development Costs

Capital Investment

Cash Flows and Tax Benefits

Flip point after year 5

Year -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

- Tax-Equity Investor
- Developer
Advantages:

- Tax equity provides most of the capital up front
- Easier way for Tribe/developer to own the project in the long run (than other advanced financing structures)
- Generally familiar structure for wind and solar industry, so many tax-equity investors have experience

Challenges:

- Limited distribution payments to Tribe/developer until later in project (e.g., year 6-7 for solar; year 10-11 for wind)
- Still requires up-front capital contribution from Tribe
- Developer must consult tax equity on major decisions
Sale Leaseback

- Rental Income
- Depreciation
- Funding Deductions
- Residual Value
- Tax Credits

Non-Recourse Lenders
- Principal and Interest
- Property

Off-taker
- PPA
- Property

Developer/Tenant
- Rent
- Rental Deduction
- Gain or loss on sale

Host
- Plant ownership changes over life of asset

Potential Tribal Role

Corporations
- Project Company/Pass-Through Entity
- Tax Equity
- Non-Recourse Lenders
- Off-taker
- Developer/Tenant
- Tax Equity Investor

$
Sale Leaseback Cash Flow, With Debt

Developer can purchase project at fair market value
Sale Leaseback Tax-Equity Structure

Advantages:

• Tax equity can provide 100% of the capital up front
• Developer gets large cash distribution upon sale of project
• Familiar and utilized structure among solar community

Challenges:

• Costly for Tribe/developer to acquire long-term ownership of project (large cash infusion ~ after year 7)
• Tribe/developer operates the project
• Requires largest equity contribution from tax-equity investor (could limit investment)
• Limited participation to developer/Tribe until buyout of project (~ year 10)
• Not possible for PTC-based project (e.g., wind)
In the inverted lease, ITC is *passed through* to the tax-equity investor, allowing developer to retain some ownership and tax benefits (MACRS). IRS PLR seems to indicate Tribe may be developer; legal opinion required.
Inverted Lease Cash Flow, No Debt

Cash Flows and Tax Benefits

Project cash flows revert to developer in yr 6

Development Costs

Capital Investment

Year: -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Taxes and Equity Investor

Developer

Development Costs, Project Construction, Project Operation

Capital Investment

Year: -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Taxes and Equity Investor

Developer
Advantages:

• Tribe/developer maintains controlling interest and ownership in project
• Cash flows to Tribe/developer from beginning
• Limits risk to tax-equity investor, possibly increasing availability of investment
• The developer owns the project after the expiration of the lease term

Challenges:

• Most complicated of all three tax-equity structures
• Developer must contribute significantly to up-front capital investment
• Not possible for PTC-based project (e.g., wind)
• Limited upside for tax-equity investor
March 8, 2013 IRS Private Letter Ruling – 111532-11

- An Indian Tribal government is not considered a “governmental unit” or “tax-exempt organization” for purposes of solar energy tax subsidies

- This presumably could permit Tribal governments to enter into an inverted lease structure \textit{without} jeopardizing access and use of federal tax incentives (potentially BIG change)

- Yet to be executed in the market; perhaps only applicable to the Tribe that applied; it would be wise to seek legal counsel


Potential Tribal implications:
\url{http://www.renewableenergyworld.com/rea/news/article/2013/05/solar-tax-credit-opportunity-for-indian-Tribes}
## Project Financing Structures: Comparison

<table>
<thead>
<tr>
<th>Structures</th>
<th>Overview</th>
<th>Characteristics</th>
<th>Tax-Equity Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership Flip</td>
<td>Common to wind/solar deals, two participants (tax-equity and developer).</td>
<td>Typically 99%/1% allocations until flip (approx. 6 years), then 5%/95%</td>
<td>8%–12%</td>
</tr>
<tr>
<td>Sale Leaseback</td>
<td>Extensive use in solar deals, at least two participants (1. tax-equity investor/lessor, 2. developer/lessee)</td>
<td>Developer sells completed project to tax-equity, leases it back (10–15 years)</td>
<td>10%–15%</td>
</tr>
<tr>
<td>Inverted Lease/Lease Pass-Through</td>
<td>More complex and less common, at least two participants (1. tax-equity investor/lessee, 2. developer/lessor)</td>
<td>Project majority owned by developer, leases to investor, (7–10 years)</td>
<td>10%–15%</td>
</tr>
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## Financing Structures and Tribal Implications

<table>
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<tr>
<th>Financing</th>
<th>Direct Ownership</th>
<th>Partnership Flip</th>
<th>Sale Leaseback</th>
<th>Inverted Lease/Lease Pass-Through</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financing</strong></td>
<td>User self-finances system and consumes power on-site</td>
<td>Investor can provide up to 99% financing. Debt can also be part of capital stack.</td>
<td>Investor provides 100% financing. Debt can also be part of capital stack, commonly at developer level.</td>
<td>Investor provides partial financing. Debt is a common part of capital stack.</td>
</tr>
<tr>
<td><strong>Up-front Tribal Capital Req.</strong></td>
<td>$$$$$</td>
<td>$</td>
<td>$, potentially $0</td>
<td>$$$$–$$$$</td>
</tr>
<tr>
<td><strong>Ownership</strong></td>
<td>User-owned</td>
<td>Co-ownership by developer and investor</td>
<td>Developer has option to purchase assets at lease term</td>
<td>Assets revert to developer at the lease term</td>
</tr>
<tr>
<td><strong>Tax Credit</strong></td>
<td>NA</td>
<td>PTC or ITC, and MACRS</td>
<td>ITC and MACRS</td>
<td>ITC and MACRS</td>
</tr>
<tr>
<td><strong>Investor Preference</strong></td>
<td>Certain firms have preferences for/familiarity with particular structures and/or technologies. Project specifics may also dictate financial structure selected.</td>
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