

DOE OFFICE OF INDIAN ENERGY

# Tribal Roles in Renewable Energy Projects

Colton Heaps

National Renewable Energy Laboratory



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Indian Energy



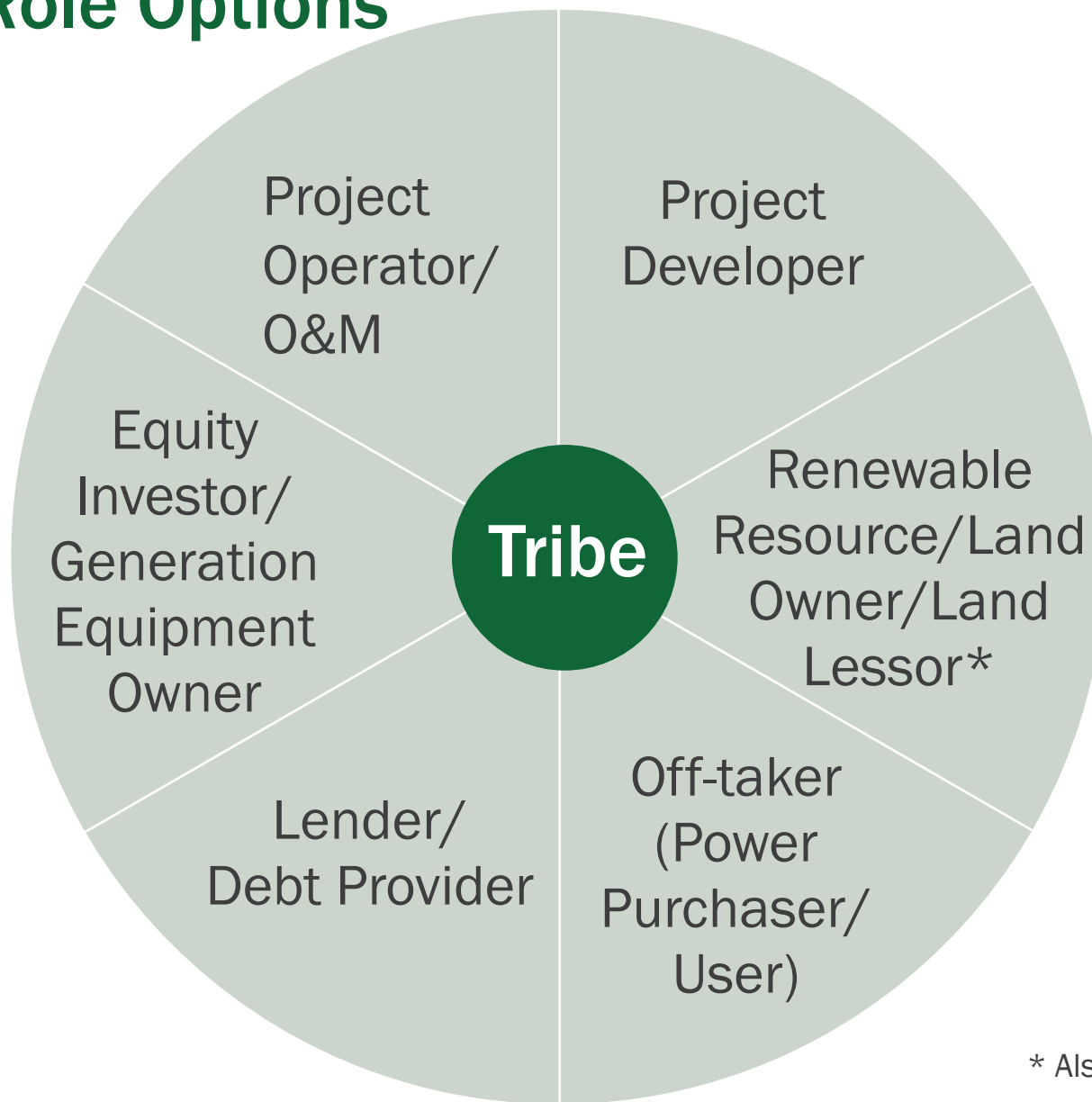
# ■ Federal Tax Incentives

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

# Comparison of Tax Incentives

	PTC	ITC	Accelerated Depreciation
Value	Tax credit of 2.3¢/kWh or 1.1¢/kWh, depending on tech	Tax credit of 10% or 30% of project costs, depending on tech	Depreciation of eligible costs (not all project costs qualify)
Select Qualifying Technologies	<ul style="list-style-type: none"> <li>• Wind</li> <li>• Geothermal</li> <li>• Biomass</li> <li>• Hydro</li> </ul>	<ul style="list-style-type: none"> <li>• Solar</li> <li>• Fuel cells</li> <li>• Small wind</li> <li>• Geothermal</li> </ul>	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.	<p><b>MACRS:</b> 5-year depreciation schedule</p> <p><b>Bonus:</b> 50% first year accelerated depreciation on equipment</p>
Expiration	Start construction before 1/1/2014	Placed in service before 1/1/2017*	<p><b>MACRS:</b> None</p> <p><b>Bonus:</b> 1/1/2014</p>

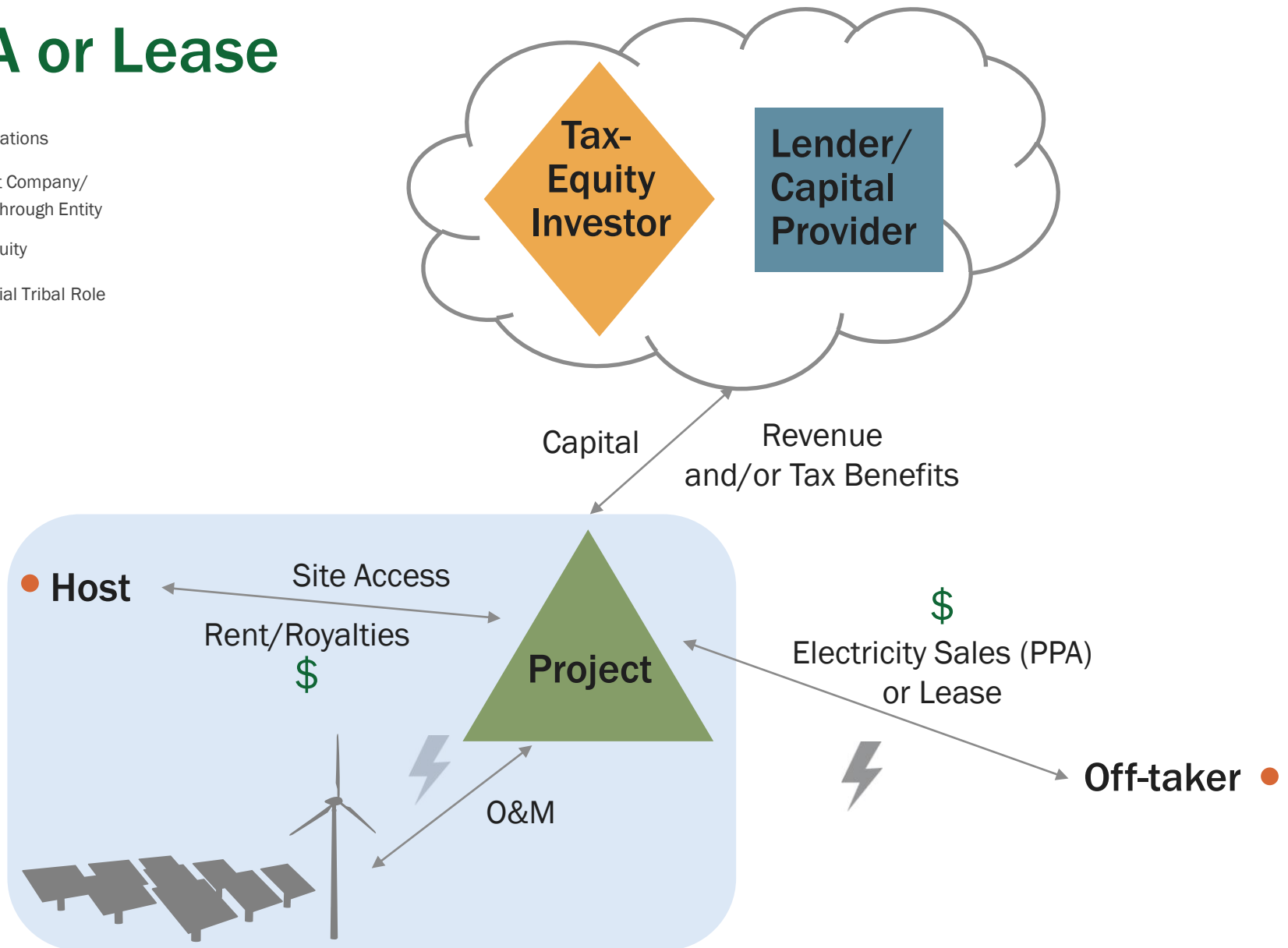
# Tribal Role Options



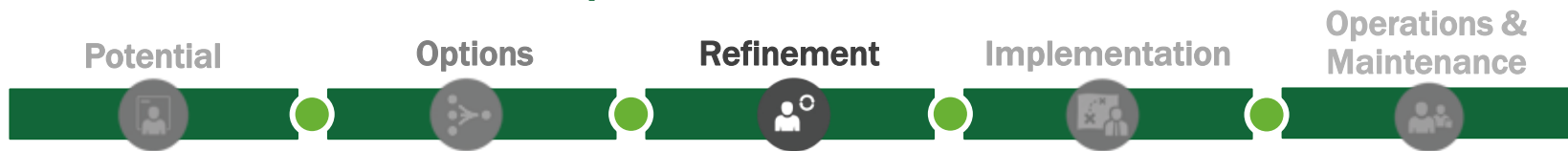
\* Also called Tribal Host

# PPA or Lease

- Corporations
- ▲ Project Company/  
Pass-Through Entity
- ◆ Tax Equity
- Potential Tribal Role



# Tribe as Host and/or Off-taker



## Advantages:

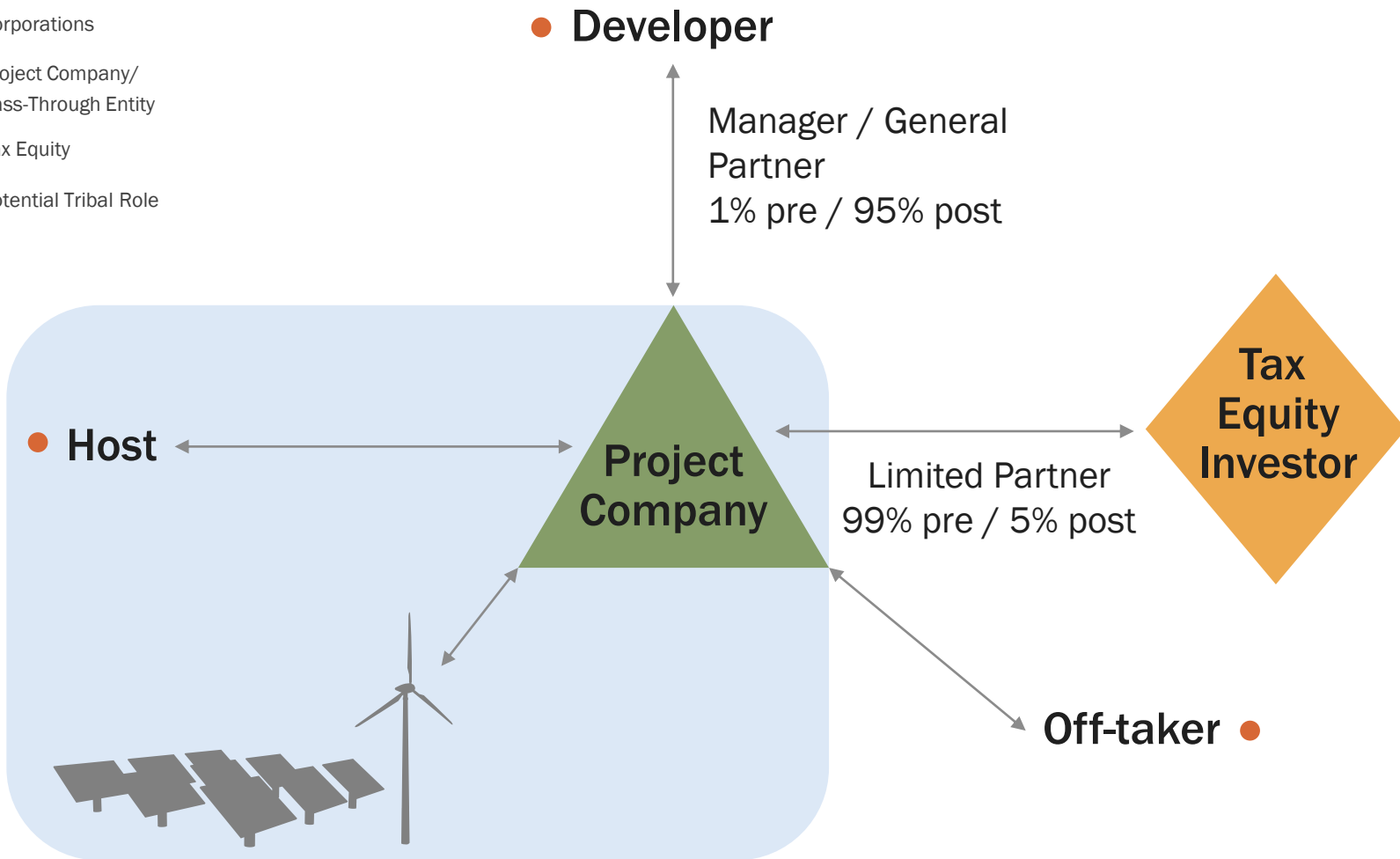
- No or Low up-front costs
- No O&M costs
- Save on electricity costs (as Off-taker) or gain revenue from rents and/or royalties (as Host)
- Likely purchase option at Fair Market Value at end of PPA/Lease

## Challenges:

- No certain ownership role from beginning
- No control of asset during PPA/Lease term

# Partnership Flip

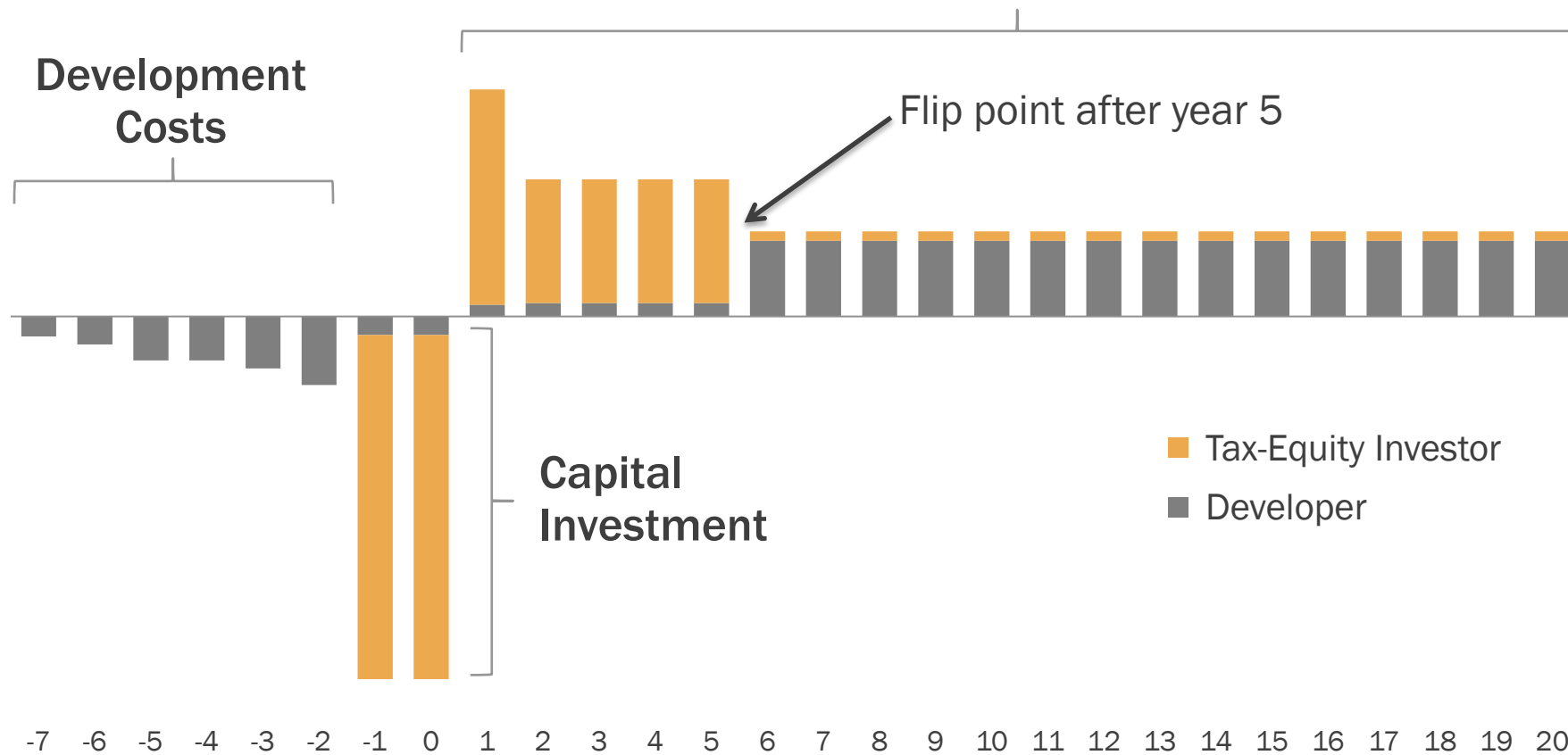
- Corporations
- ▲ Project Company/  
Pass-Through Entity
- ◆ Tax Equity
- Potential Tribal Role



# Partnership Flip Cash Flow, No Debt

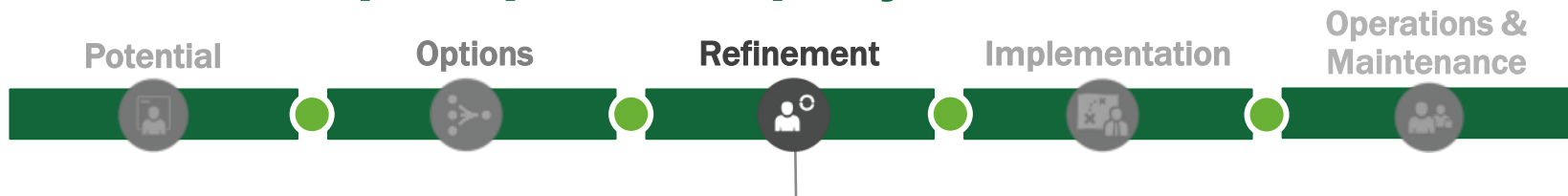


## Cash Flows and Tax Benefits





# Partnership Flip Tax-Equity Structure



## 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

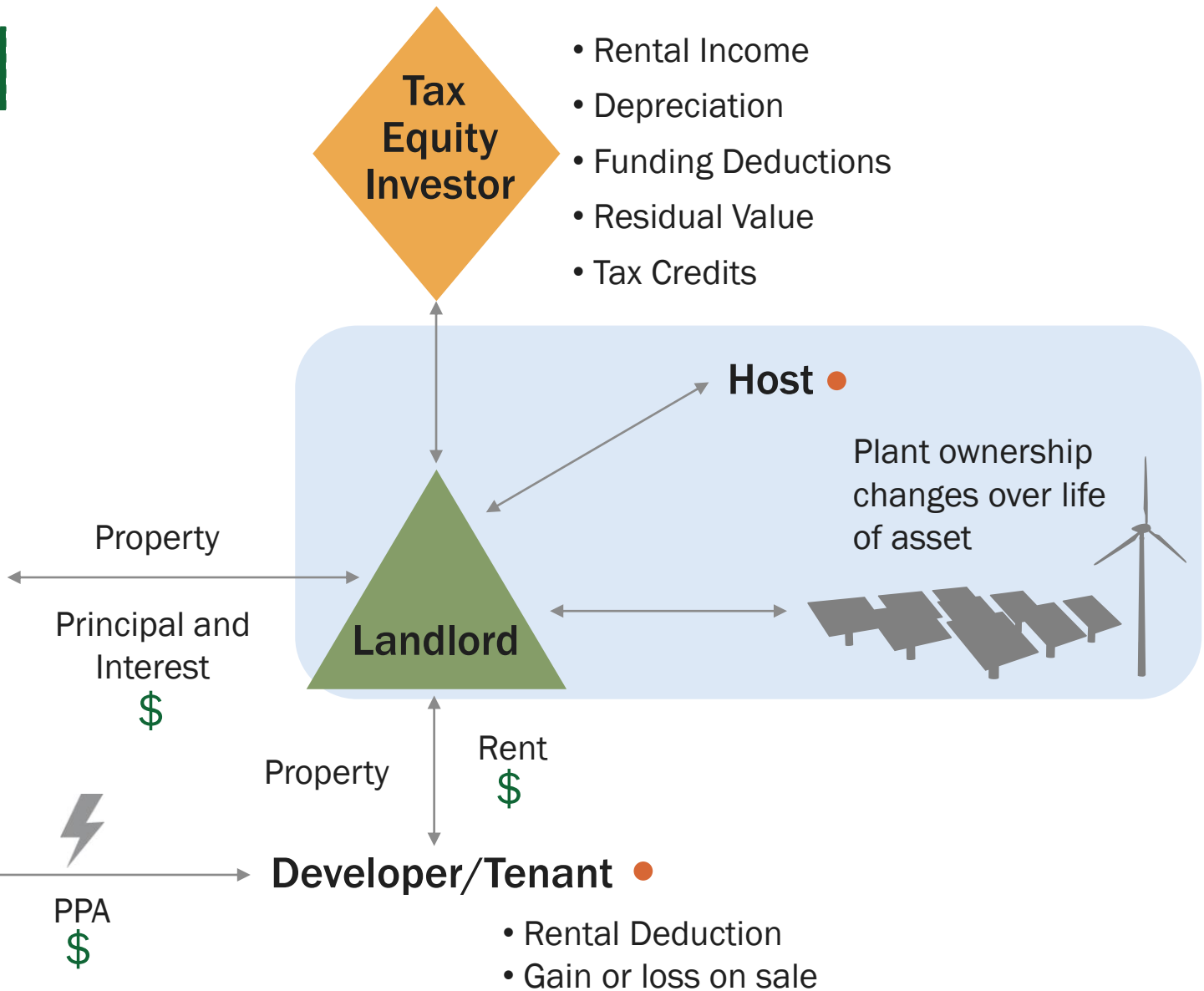
# Sale Leaseback

- Corporations
- ▲ Project Company/  
Pass-Through Entity
- ◆ Tax Equity
- Potential Tribal Role

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

● **Non-Recourse Lenders**

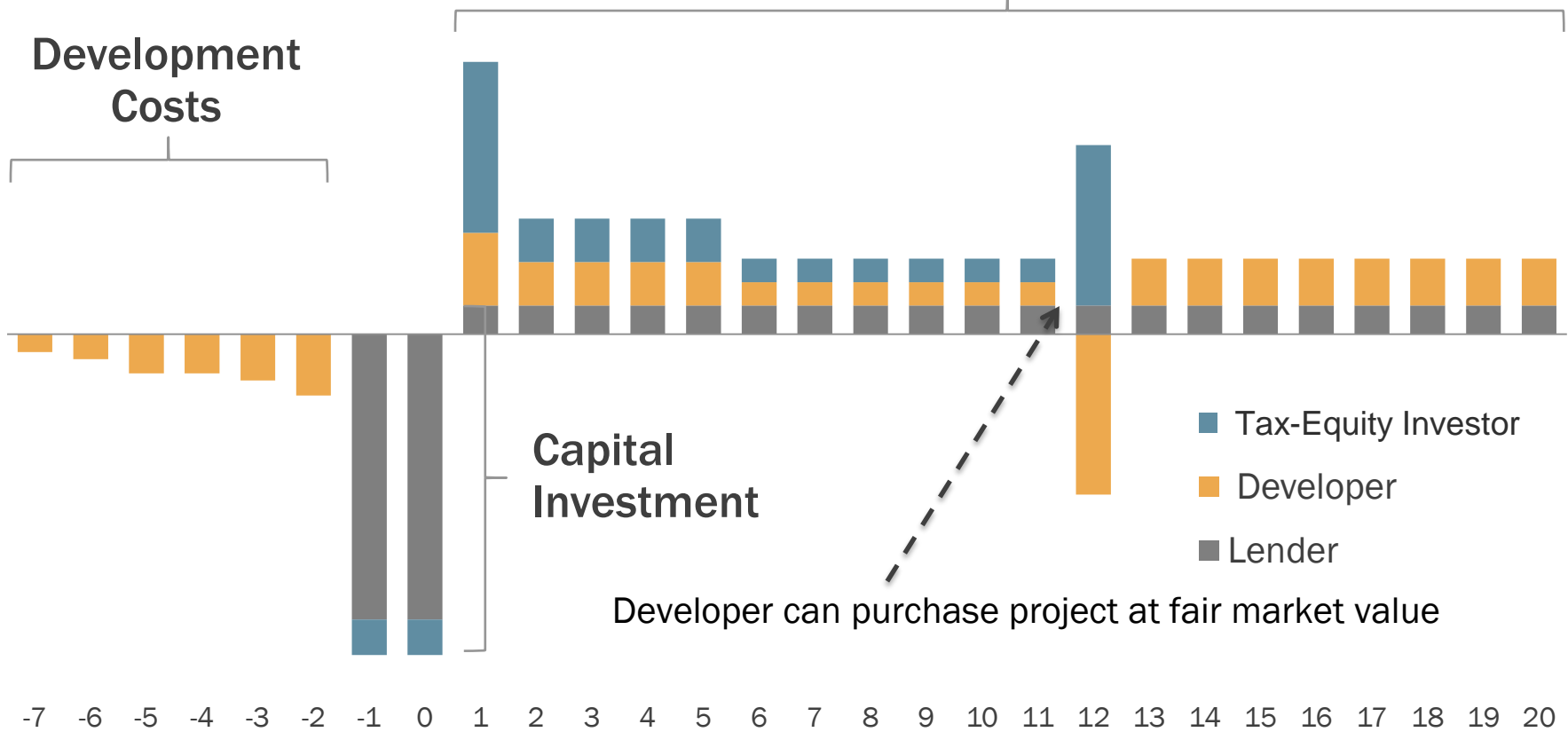
● **Off-taker**



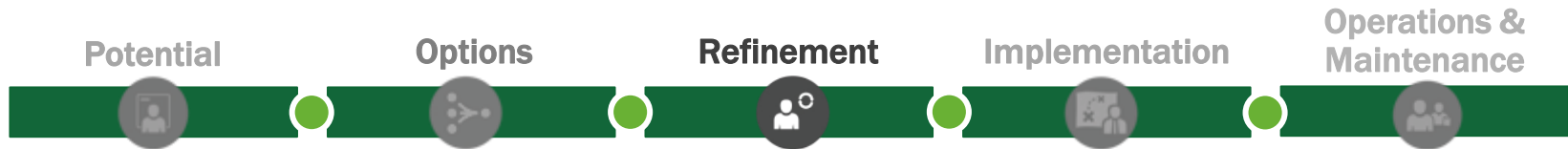
# Sale Leaseback Cash Flow, With Debt



## Cash Flows and Tax Benefits



# Sale Leaseback Tax-Equity Structure



## Advantages:

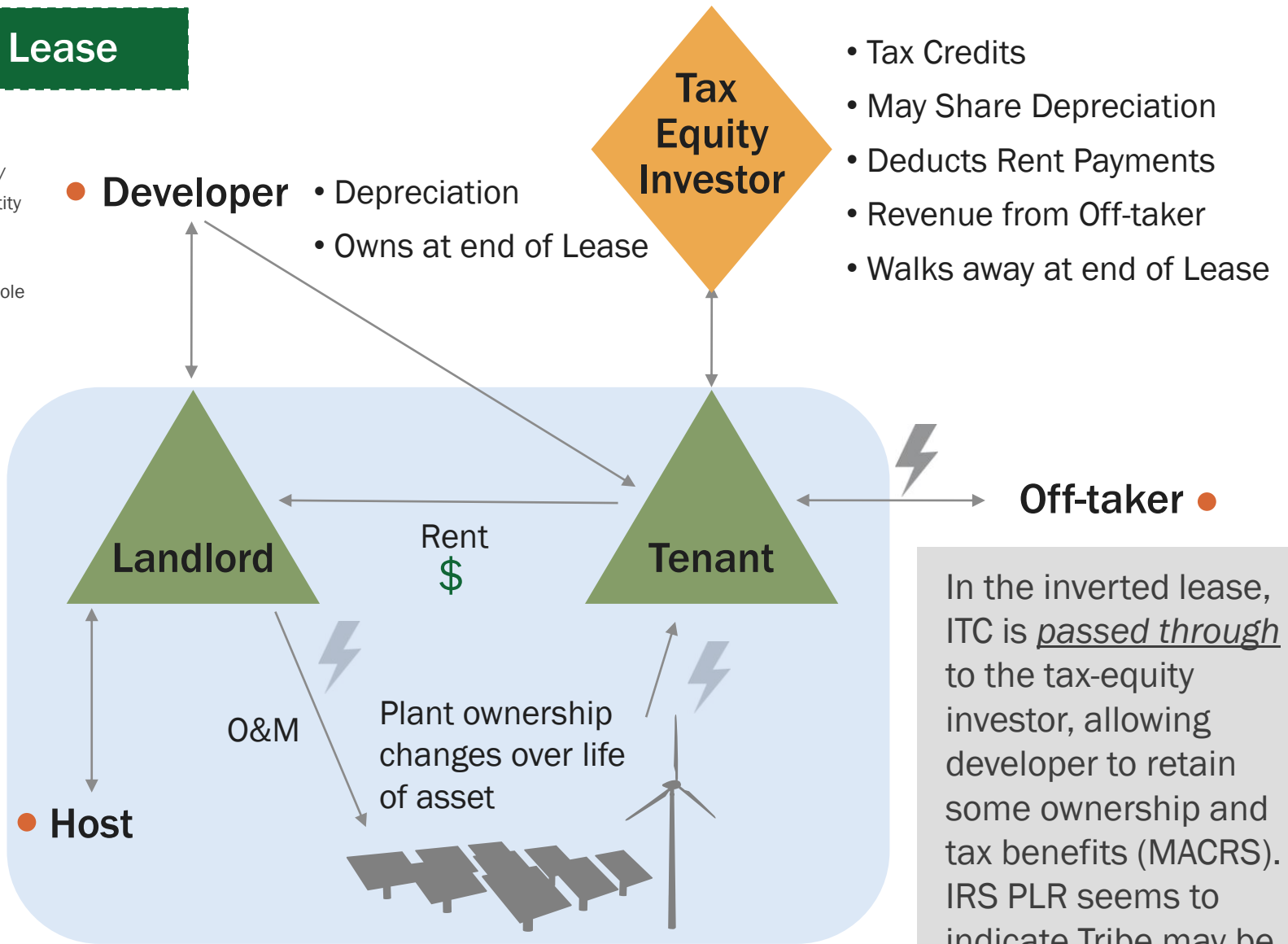
- Tax equity can provide 100% of the capital up front
- Developer gets large cash distribution upon sale of project
- Familiar and utilized structure among solar community

## 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)

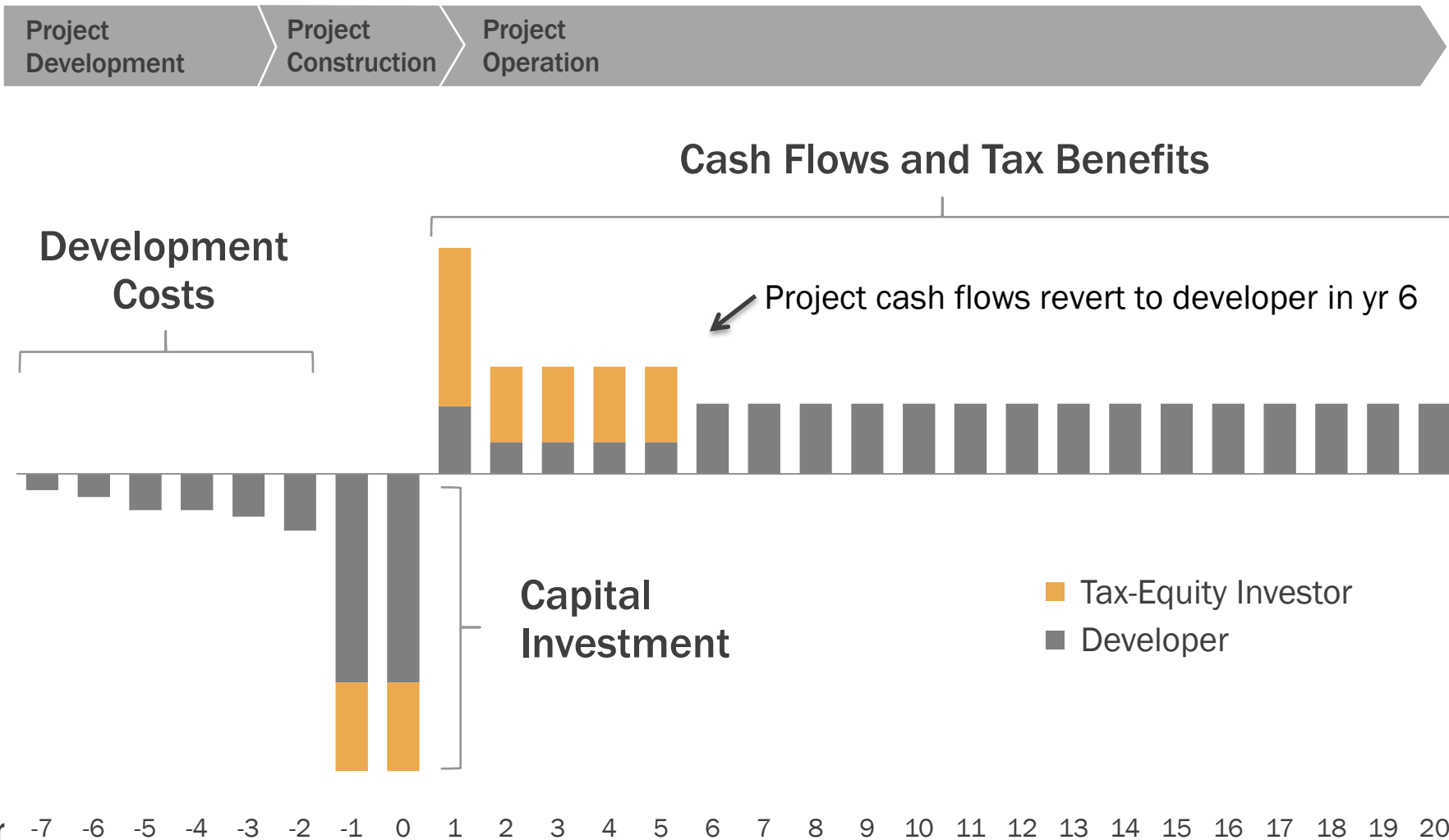
# Inverted Lease

- Corporations
- ▲ Project Company/ Pass-Through Entity
- ◆ Tax Equity
- Potential Tribal Role

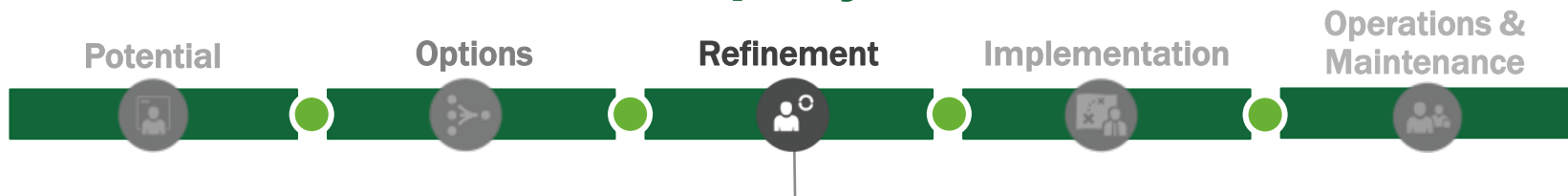


In the inverted lease, ITC is *passed through* to the tax-equity investor, allowing developer to retain some ownership and tax benefits (MACRS). IRS PLR seems to indicate Tribe may be developer; legal opinion required.

# Inverted Lease Cash Flow, No Debt



# Inverted Lease Tax-Equity Structure



## 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 *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

**IRS Private Letter Ruling (PLR):** <http://www.irs.gov/pub/irs-wd/1310001.pdf>

**Potential Tribal implications:**

<http://www.renewableenergyworld.com/rea/news/article/2013/05/solar-tax-credit-opportunity-for-indian-Tribes>



# Project Financing Structures: Comparison

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

# Financing Structures and Tribal Implications

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