

DOE OFFICE OF INDIAN ENERGY

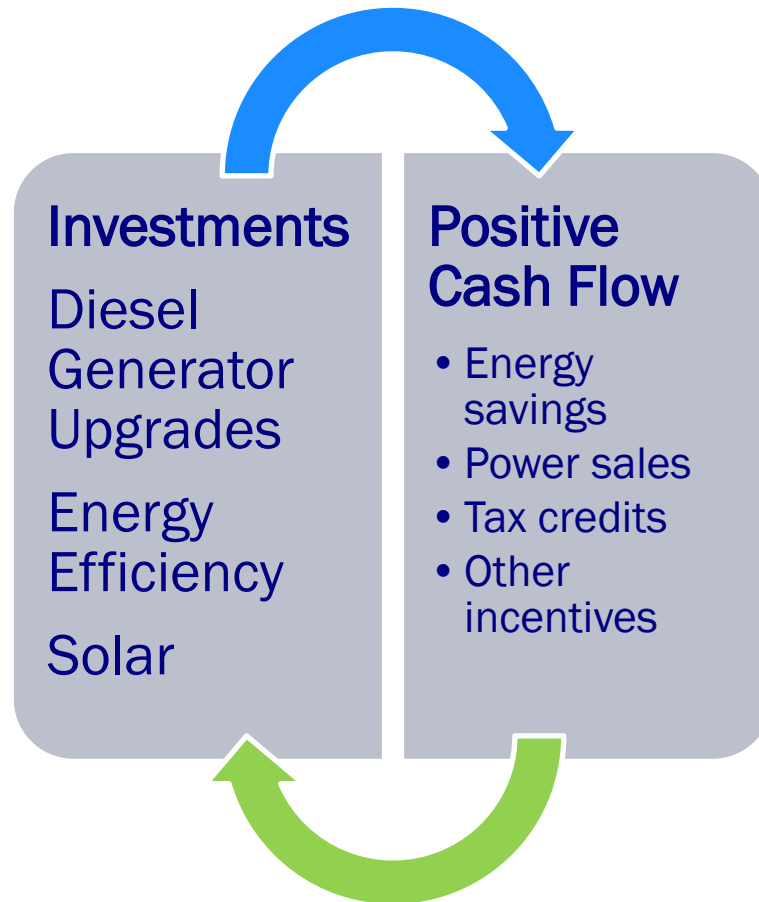
Non Grant-based financing introduction, options and structures

“the winds are changing”

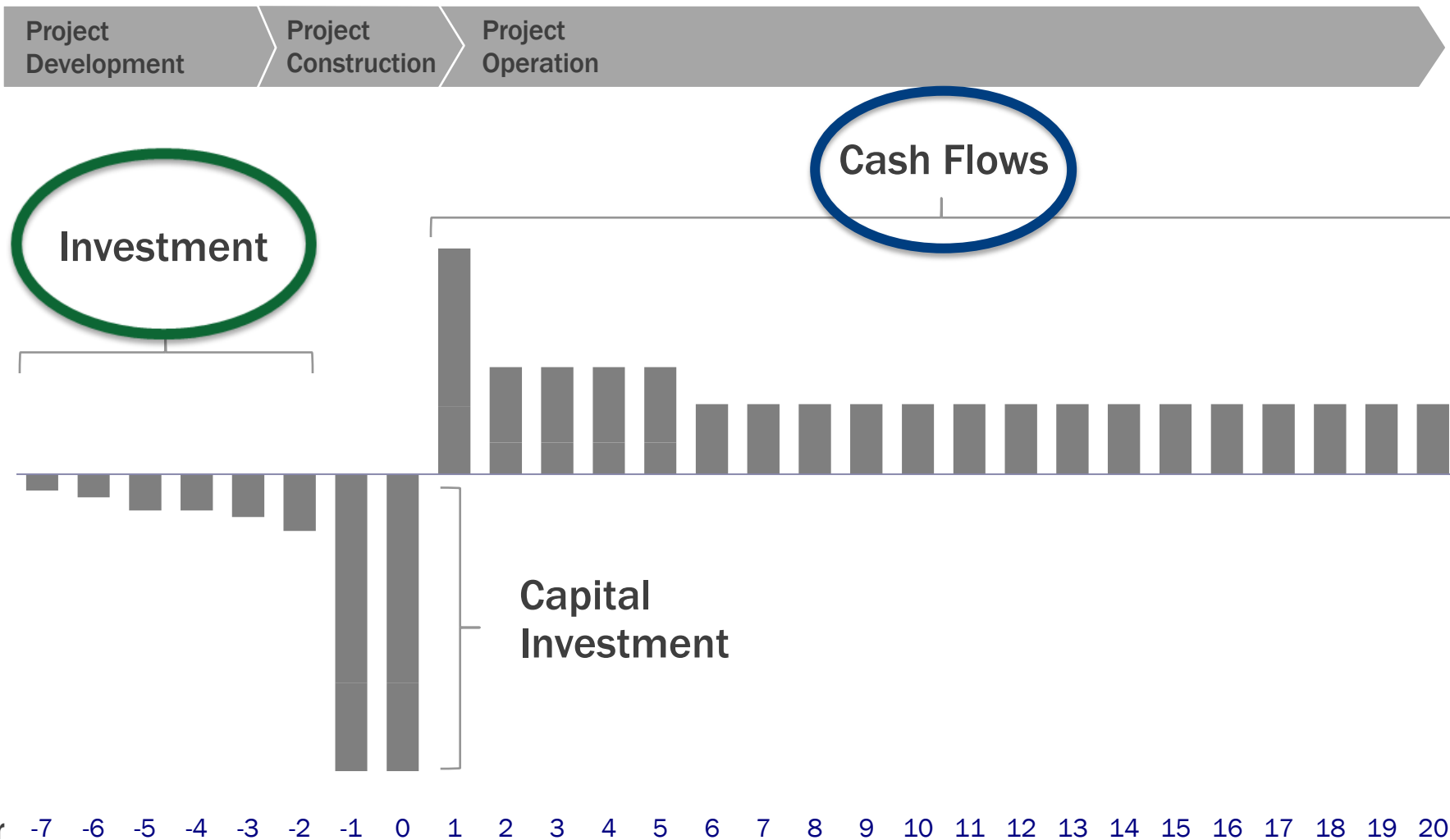


U.S. DEPARTMENT OF
ENERGY

Office of
Indian Energy



Costs and Cash Flows



Sources of Capital for Investment



Loans and Loan Support

- Market Rate Loans
- Subsidized Loans
- Loan Guarantees
- Loan Loss Reserves

What does a Lender want to see?

1. Credit History (rating)
2. Source of repayment of loan– cash flows from project
 - Can you convert energy savings into cash?
 - Power sales under a PPA
 - Level of confidence in the cash flows
3. Secondary source of repayment
 - Collateral
 - Guarantee (e.g. Village Corp, State or Federal entity)
 - Other funds
 - PCE payments
 - Shareholder dividends
4. What does the project or company look like under stress scenarios?
5. Insurance
6. O&M plan – Access to spare parts

TED Bonds

- Tribal Economic Development Bonds
- Federally recognized tribes
- Allocation to issue tax exempt bonds or tax exempt loans
- Ability to issue bonds beyond just for essential government services

Municipal Bonds

- Tax Exempt Bonds (Tax exempt Tribal bonds)

Private Bonds

- Native Corporations
- Village Corporations (?)

Tax Credit Bonds

- Qualified Energy Conservation Bonds (QECCBs)
- Buyer of bonds gets a tax credit OR issuer of bonds gets subsidy

What is tax exempt debt?

Taxable Interest

- Interest rate = 8%
- How much you owe in taxes = 30%
- After tax interest you earn = 5.6%

Tax-exempt Interest

- Interest rate = 5.6%
- How much you owe in taxes = 0%
- After tax interest you earn = 5.6%

$\$100,000 * 2.4\% = \$2,400$ saved per year in interest

Investment Tax Credits

- Solar
- Wind
 - Based on upfront qualified costs
 - Established phase out timeline

Production Tax Credits

- Wind
 - Production-based over 10 years
 - Established phase out time line

Depreciation (tax benefit)

- Non cash expense that lowers taxes owed

New Market Tax Credits

- Tax credits worth 39% of project costs earned over 7 years
- Approximately 25% of funds for a project
- Combined with debt
- Yukon-Koyukuk Elder Assisted Living Facility (YKEALF)
 - Nulato Tribe, Louden Tribe, Native Tribe of Koyukuk, Ruby Tribe and the Kaltag Tribe.

What's a tax credit?

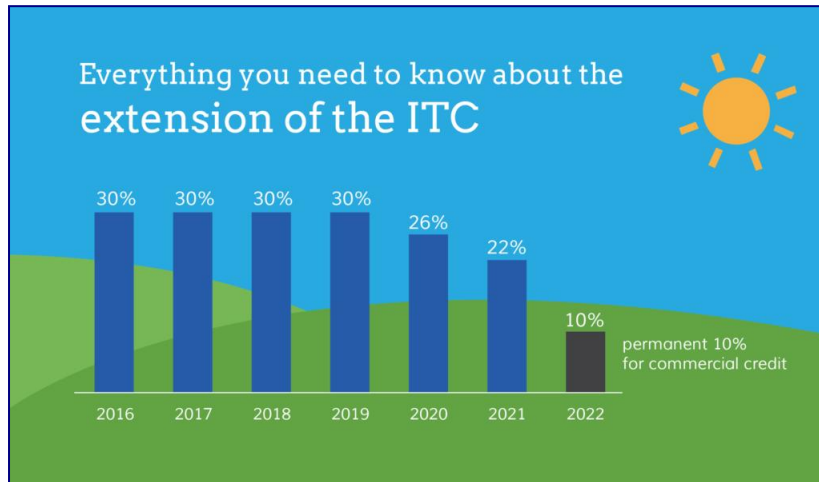
A tax credit reduces dollar for dollar the amount of taxes you owe.

- If you owe \$15,000 in taxes and you have a \$10,000 tax credit, you reduce your tax bill to \$5,000

Tax deduction (Depreciation)

- Reduces your taxable income subject to tax.
- Taxable income = \$20,000. Pay \$4,000 at a 20% tax rate
- Tax deduction of \$6,000
- After deduction, taxable income is \$14,000. Pay \$2,800
- Save \$1,200.

Status of federal tax credits



Source: <http://a2solar.com/2016/05/investment-tax-credit/>

Takeaways

There is time to plan – but time goes fast

Begun Construction language

Potential for continued cost declines to offset declining percentage

Greater chance local business or sponsor can use tax credits as the size of these tax credits fall

Wind also eligible for ITC through 2019

Section 45 Production Tax Credit

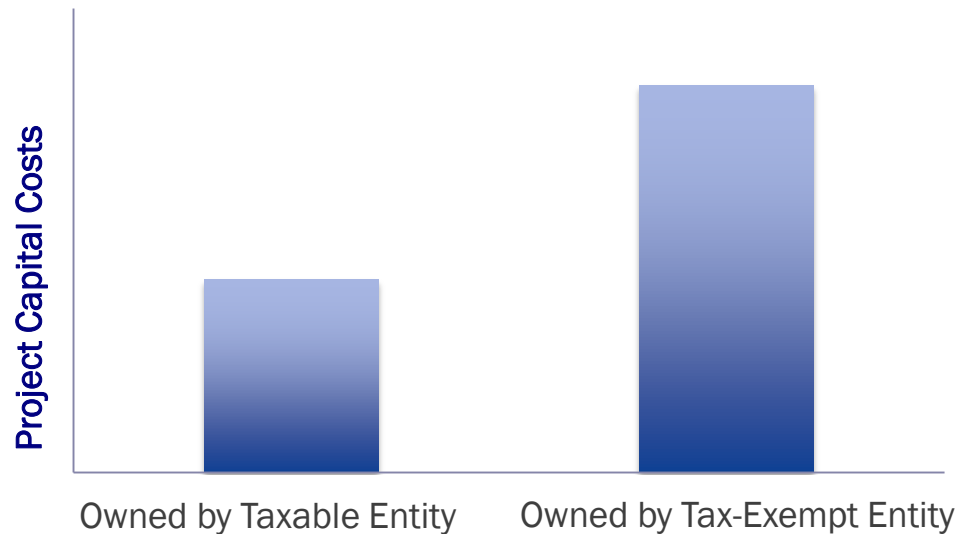
Renewable Energy Resource	Deadline to Begin Construction	Tax Credit Amount
Wind	Dec. 31, 2016	2.3¢/kWh
	Dec. 31, 2017	1.8¢/kWh
	Dec. 31, 2018	1.4¢/kWh
	Dec. 31, 2019	0.9¢/kWh
Closed-loop biomass	Dec. 31, 2016	2.3¢/kWh
Open-loop biomass	Dec. 31, 2016	1.2¢/kWh
Geothermal energy	Dec. 31, 2016	2.3¢/kWh
Landfill gas	Dec. 31, 2016	1.2¢/kWh
Municipal solid waste	Dec. 31, 2016	1.2¢/kWh
Qualified hydroelectric	Dec. 31, 2016	1.2¢/kWh
Marine and hydrokinetic (150 KW +)	Dec. 31, 2016	1.2¢/kWh

NOVOGRADAC & COMPANY LLC

Source: https://www.novoco.com/sites/default/files/atoms/files/path_act_summary_chart_renewable_energy_expiration_dates_050216.pdf

So why seek a partner who can take the tax credits?

- Tax incentives such as Modified Accelerated Cost Recovery System (MACRS) and either Production Tax Credit (PTC) or Investment Tax Credit (ITC) can represent up to half the project value, or reduce project capital costs by ~50%

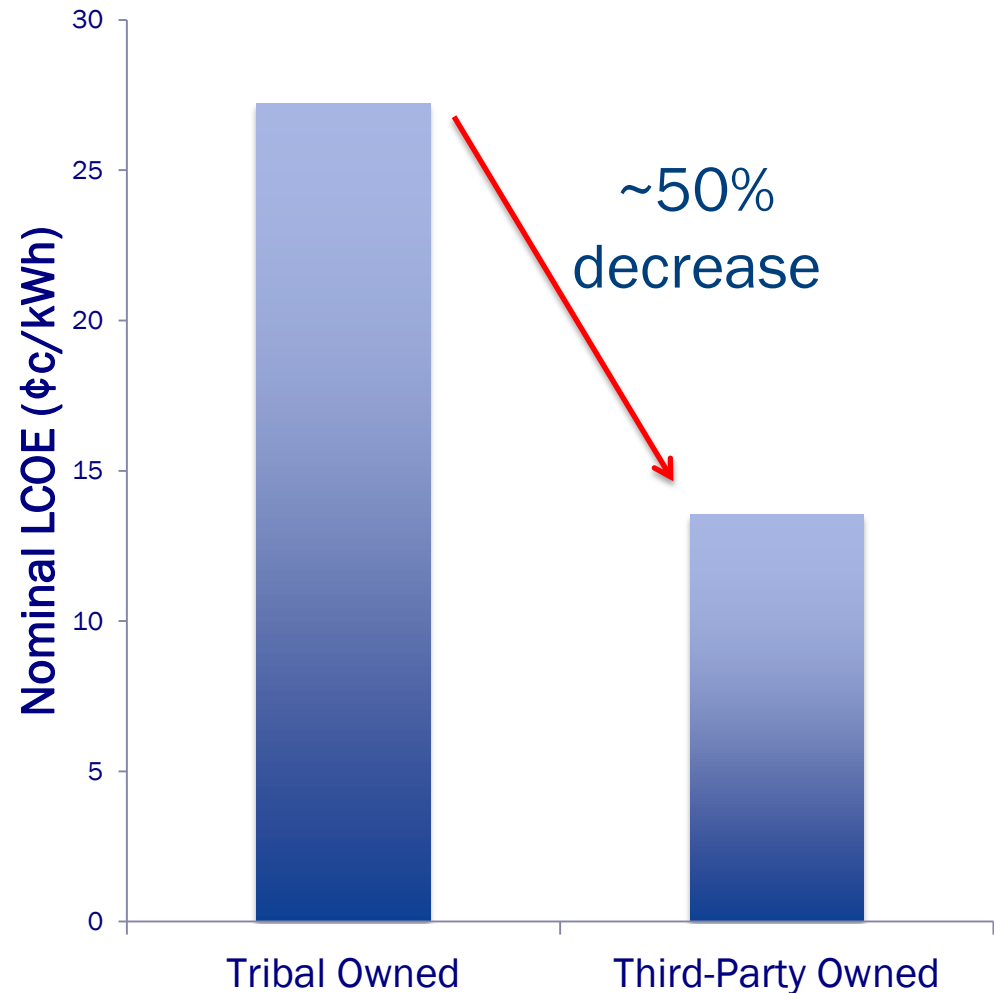


No Tax Benefits

Metric	Base
Annual Energy	37,230,428
PPA price	25.36 ¢/kWh
LCOE Nominal	27.22 ¢/kWh
LCOE Real	22.11 ¢/kWh
Internal rate of return (%)	12.00 %
Minimum DSCR	3.36
Net present value (\$)	\$ 2,386,955
Calculated ppa escalation (%)	1.00 %
Calculated debt fraction (%)	50.00 %
Capacity Factor	21.3 %
First year kWhac/kWdc	1,862
System performance factor (%)	0.82

Tax Benefits

Metric	Base
Annual Energy	37,230,428
PPA price	12.62 ¢/kWh
LCOE Nominal	13.55 ¢/kWh
LCOE Real	11.00 ¢/kWh
Internal rate of return (%)	21.11 %
Minimum DSCR	1.57
Net present value (\$)	\$ 6,525,698
Calculated ppa escalation (%)	1.00 %
Calculated debt fraction (%)	50.00 %
Capacity Factor	21.3 %
First year kWhac/kWdc	1,862
System performance factor (%)	0.82



Federal Tax Benefits

\$600,000 qualified investment in solar = \$180,000 tax credit plus depreciation benefits.

Business (taxable entity)

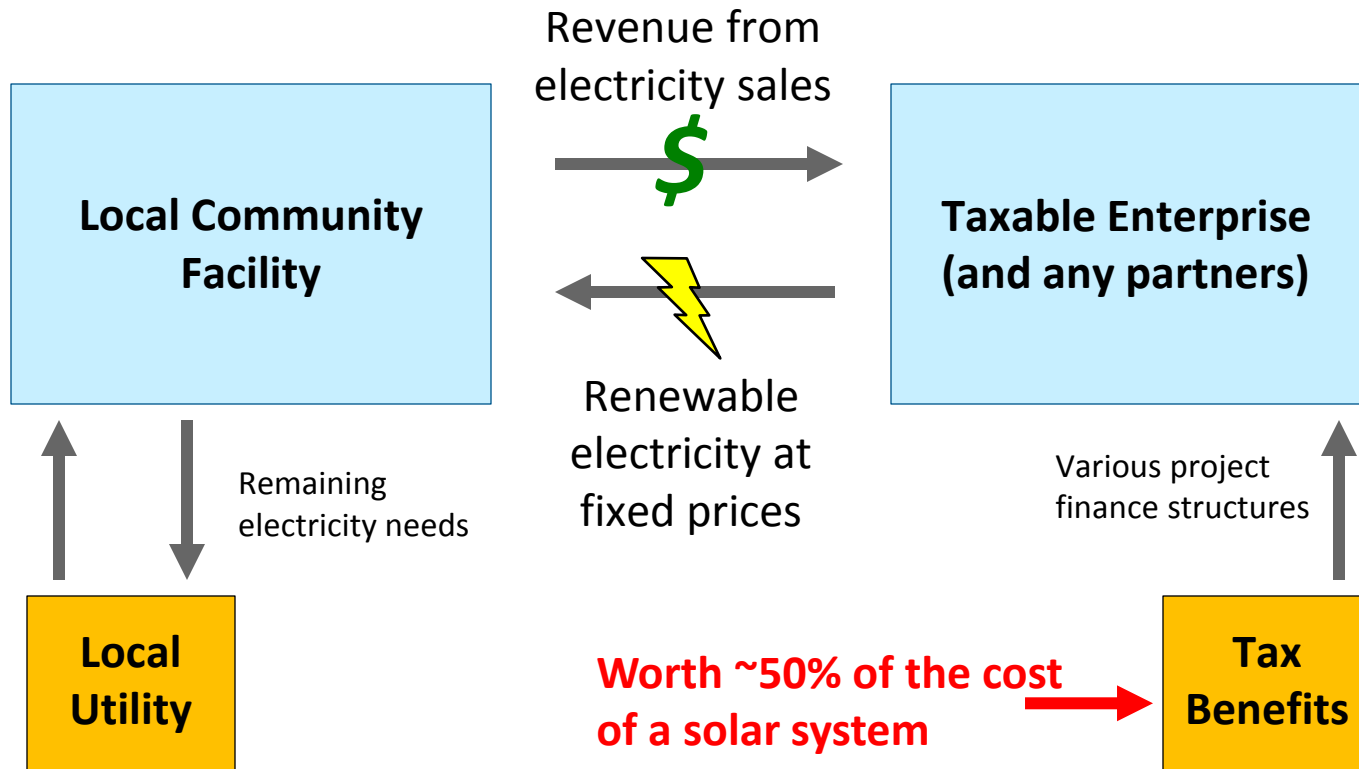
- Buy and install a solar system and get the tax benefits in addition to lower utility bills. (e.g. Commercial enterprise)
- Buy, install and sell the electricity to another entity (e.g. school). Get tax benefits and revenue from electricity sales (e.g. Native Corporation).
- Buy, install and sell the electricity to a utility.

Tax Equity Investors

- Third parties who have a tax liability to offset
- Willing to invest capital in return for the tax benefits and some cash flow
- Once tax benefits are “used up”, these tax equity investors are often interested in exiting the transaction.
- Multiple tax structures depending on technology

Third Party Power Purchase Agreement

The customer agrees to host the system and purchase the electricity



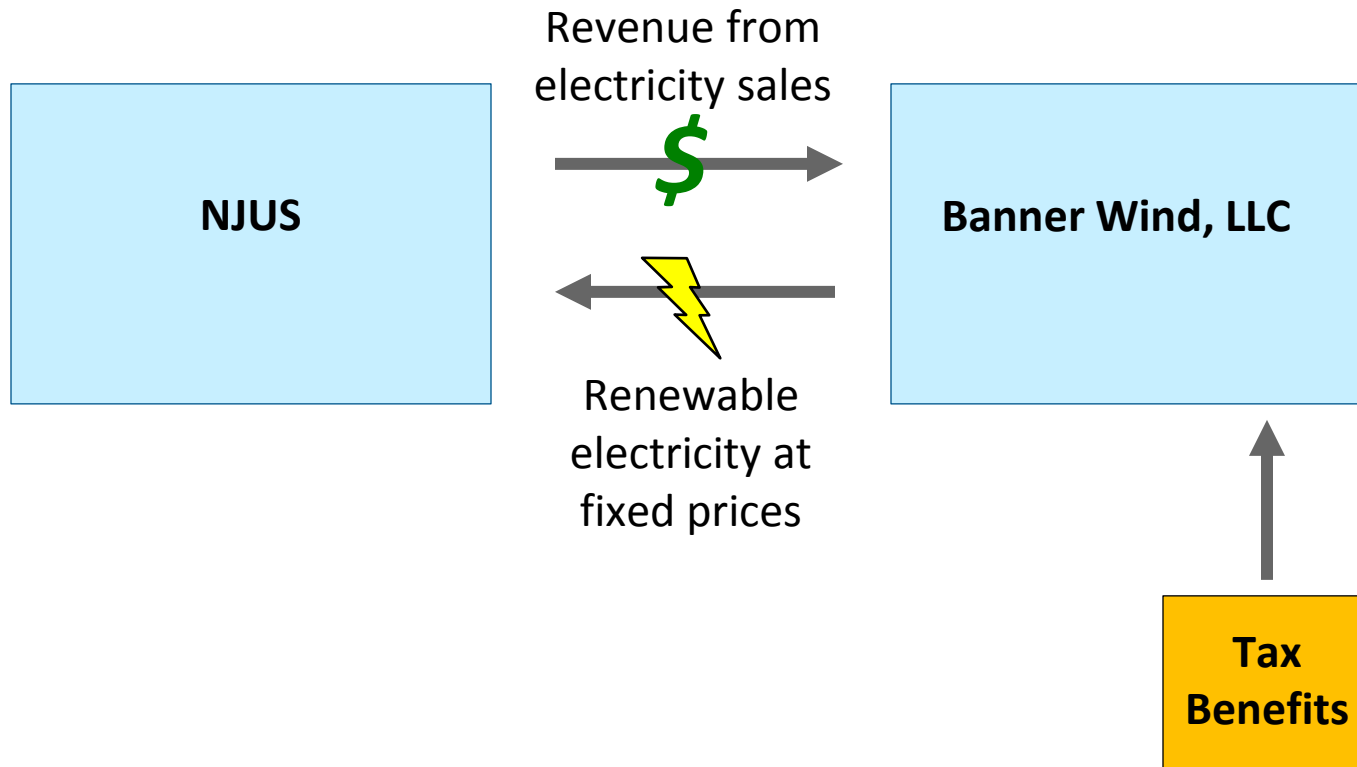
■ Banner Wind in Nome*

- Banner Wind LLC
 - Partnership between Sitnasuak Native Corp (SNC) and Bering Straits Native Corp
 - Banner Wind sells power to Nome Joint Utilities Service (NJUS) under a 20 year PPA
 - SNC and BNC earned revenues from power sales and took the tax benefits
 - Grant for transmission line
 - Sold project to NJUS in 2015
 - Banner Wind LLC dissolved

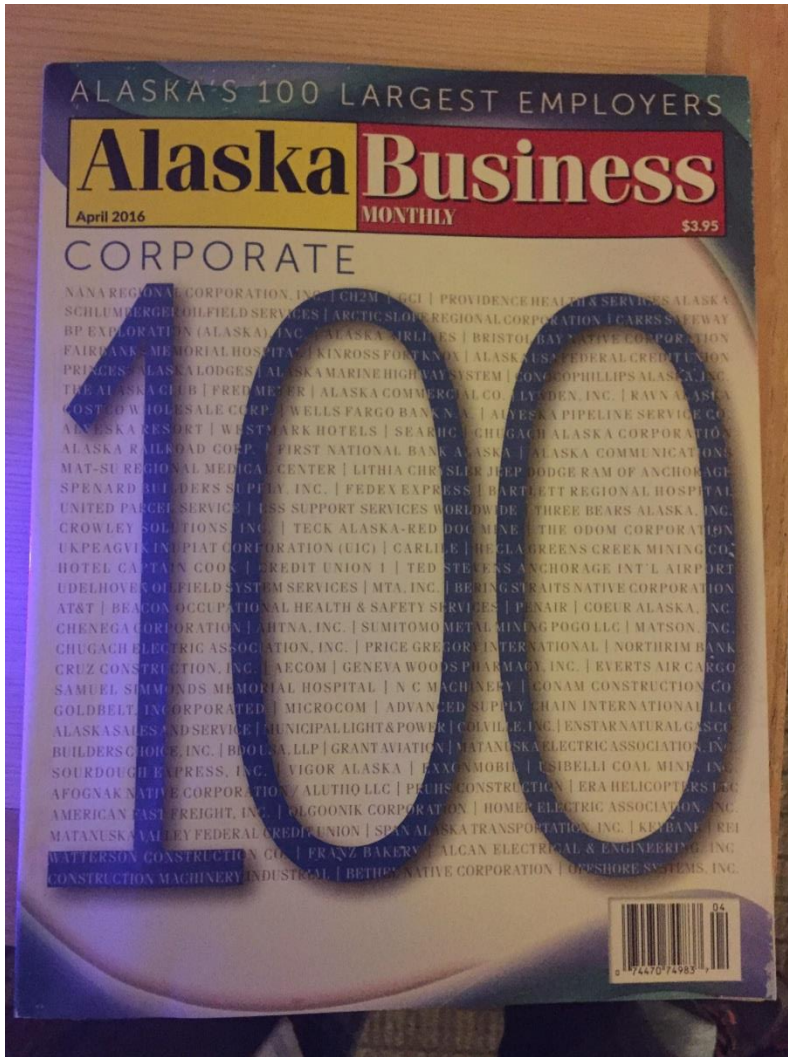
*Barriers to and Opportunities for Private Investment in Rural Alaska Energy projects. December 2016. Prepared for AEA by ACEP at UAF.

Third Party Power Purchase Agreement

The customer agrees to host the system and purchase the electricity



Where to Seek out Private Capital Partners?



- *Native Corps*
- *Financial Services*
- *Telecommunications*
- *Transportation / Logistics*
- *Tourism*
- *L48 Companies*

Key Concept: Tax Benefits and Tax Equity

1. Valuable Incentives if you can monetize them
2. A taxable tribal entity may be able to monetize the tax credits directly and eliminate the need for a tax equity partner.
 - Taxable tribal enterprise buys PV system for own use.
 - Native or Village Corporation sells power under a PPA to tribal community facility or directly to a utility.
3. Buy electricity under a PPA from a third party and implicitly benefit from the tax credits (e.g. lower cost of electricity)
4. A taxable tribal entity can partner with third party and enter into some form of a partnership (flip transaction).

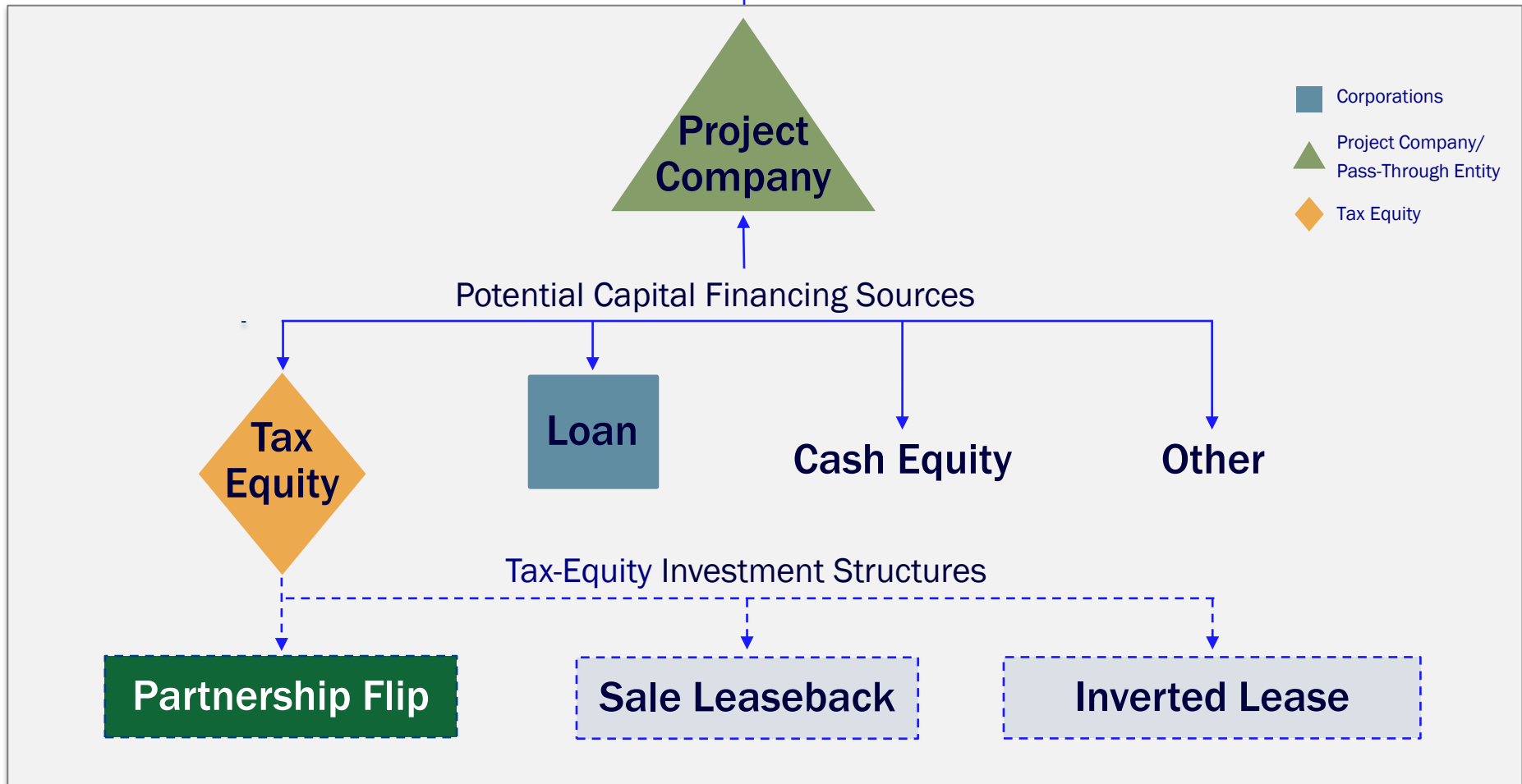
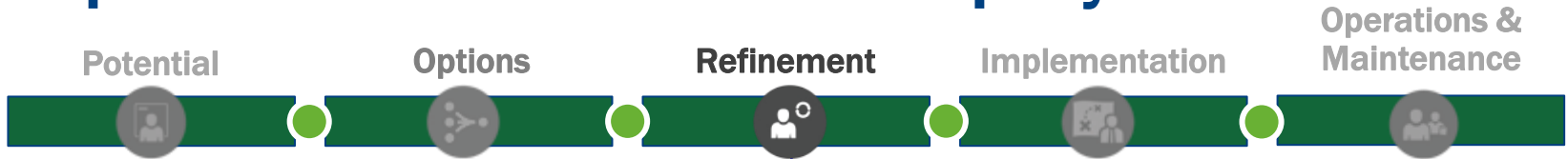
TAX EQUITY STRUCTURES



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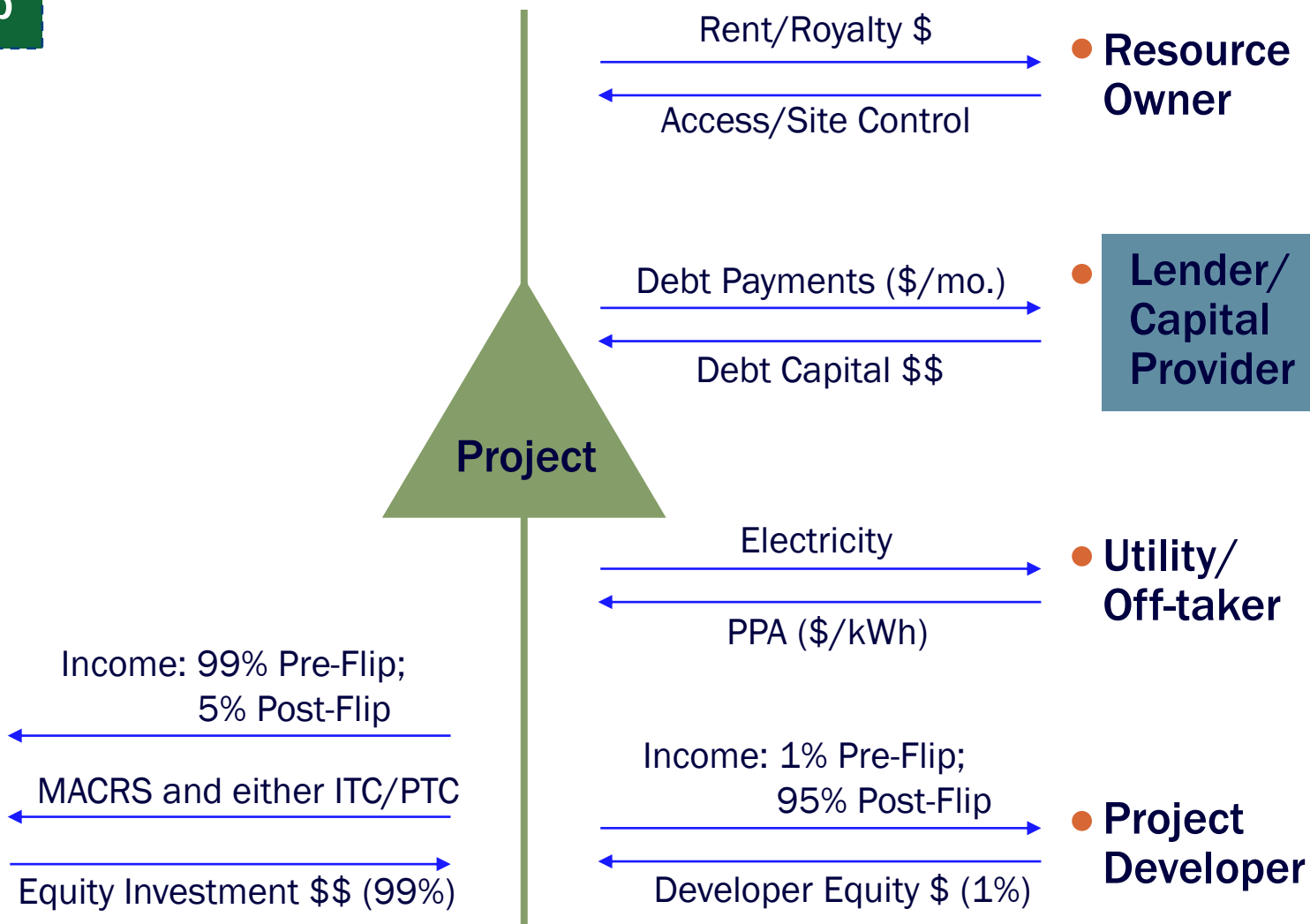
Capital Structure with Tax Equity



Partnership Flip

Partnership Flip

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

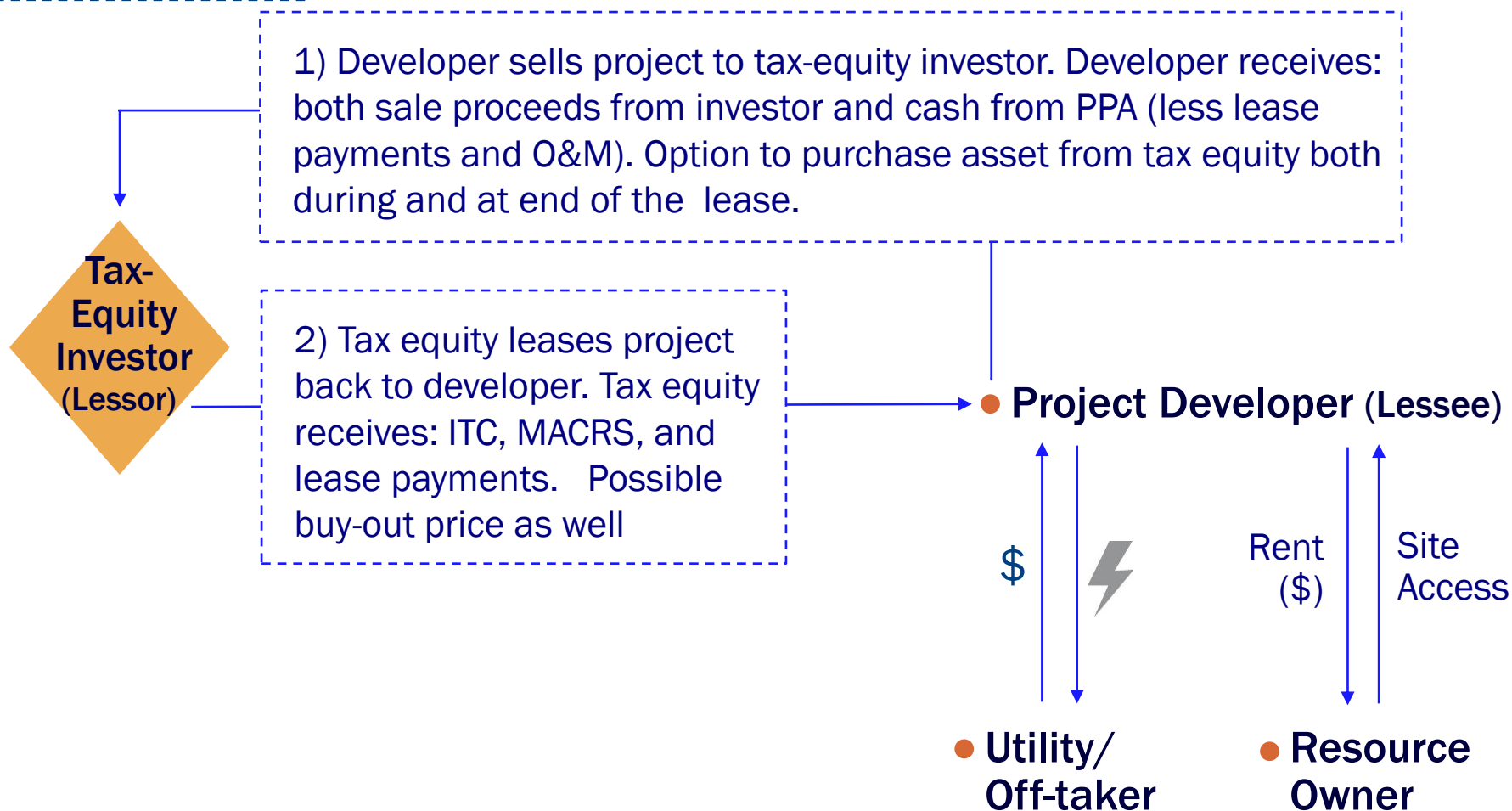


Sale Leaseback Structure

◆ Tax Equity

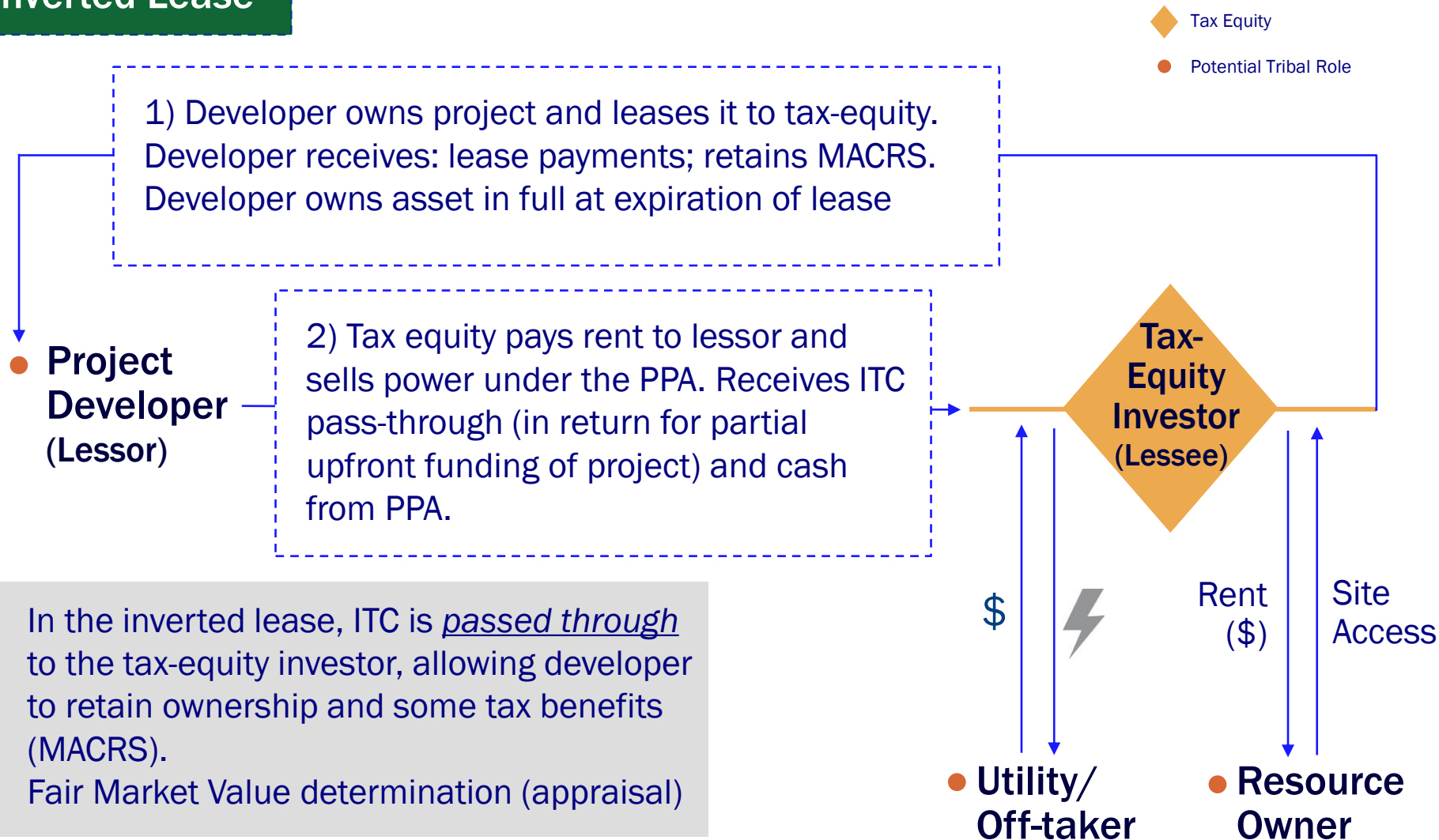
● Potential Tribal Role

Sale Leaseback



Inverted Lease/Lease Pass-Through Structure

Inverted Lease



Private Letter Ruling

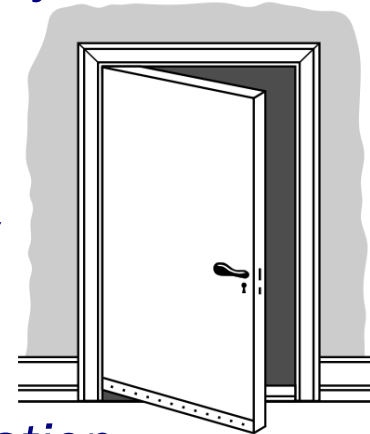
What is a PLR?

A private letter ruling, or PLR, is a written statement issued to a taxpayer that interprets and applies tax laws to the taxpayer's represented set of facts. A PLR is issued in response to a written request submitted by a taxpayer. A PLR may not be relied on as precedent by other taxpayers or by IRS personnel.

Private Letter Ruling

2013 IRS PLR supported Tribal partnerships with third-party tax equity <http://www.irs.gov/pub/irs-wd/1310001.pdf>

Based on your representation that the Renewable Energy Assets qualify as energy property under § 48 and our conclusion that an Indian tribal government is neither a governmental unit described in § 50(b)(4) nor an organization exempt from tax imposed by Chapter 1 for purposes of § 50, we conclude that Tribe may elect to pass investment credits associated with the Renewable Energy Assets to Lessee under § 50(d)(5).



Private Letter Ruling Withdrawn

June 29, 2016

In Private Letter Ruling 201310001, the Internal Revenue Service concluded that Tribe may elect to pass investment credits associated with the Renewable Energy Assets to an unrelated third party lessee (Lessee) under § 50(d)(5).

*After reconsideration, we have concluded that Tribe may not elect to pass investment credits associated with the Renewable Energy Assets to Lessee under § 50(d)(5). Accordingly, Private Letter Ruling 201310001 is **revoked** prospectively, and Tribe may place no further reliance on the ruling.*

<https://www.irs.gov/pub/irs-wd/201640010.pdf>

