Demystifying Terminology and Concepts in Renewable Finance

Alex Leff, Of Counsel
Sive, Paget & Riesel P.C.

THE BASICS OF RENEWABLE ENERGY PROJECT FINANCE
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Relevant Parties to a Typical Renewable Energy Project Financing

- Sponsors & Project Companies
- Lenders
- Tax Equity Investors
- Energy Off-takers or Purchasers
- Hedge Provider

Sponsors & Project Companies

- "Sponsors" or "Project Sponsors" typically refer to a parent company, long term asset owner or developer of renewable energy projects. This entity "sponsors" the project and is ultimately responsible for the successful development and operation of the project.
- Sponsors typically own renewable energy projects in "special purpose vehicles" (SPVs) or "special purpose entities" (SPEs). SPVs or SPE are customarily established as limited liability companies. These SPVs or SPE are referred to as the "Project Company."
- Under traditional project finance principles, lenders to a project have no recourse or limited recourse to the Sponsor meaning they can only look to the project and Project Company for collateral/security and not the balance sheet of the Sponsor.

Lenders

- Lenders provide loans to either the Project Company under traditional project finance principles or the Sponsor. When a lender provides debt directly to the Sponsor, this is known as "back-leverage."
- Three categories of loans (and typical risk profile):
  - Development Capital (greatest risk): provides capital for early stage development activities (e.g. utility and interconnection due diligence, environmental and real estate due diligence, site control, off-taker acquisition).
  - Construction Debt (less risk than development capital, but more risk than term debt): provides for the costs and expenses of constructing the project.
  - Permanent or Term Debt (least amount of risk): long term debt amortizing the development and construction costs over a period of time (e.g. 10 years)
- Construction and Permanent lenders tend to be large institutional banks. Entities providing development capital tend to be private equity or private credit entities.

Tax Equity Investors

- What is Tax Equity? "Tax equity" is a term that is used to describe a passive ownership interest in an asset or a project, where an investor receives a return based not only on cash flow from the asset or project but also on federal and state income tax benefits (tax deductions and tax credits).
  - Note: a "tax credit" is a dollar for dollar reduction in tax liability.
  - Note: a "tax deduction" is a dollar for dollar reduction in a tax payer's taxable income.
- Tax Equity Investors in the domestic renewable energy context principally utilize the following tax credits:
  - Investment Tax Credit (ITC): Internal Revenue Code Section 48
  - Production Tax Credit (PTC): Internal Revenue Code Section 45
- Tax Equity Investors tend to be widely held corporations such as institutional banks and insurance companies.
- The importance of the ITC and PTC in the proliferation of renewable energy in the United States cannot be overstated.

Energy-Offtaker

- "Offtakers" or "Power Purchasers" refer to the counterparties to a Power Purchase Agreement. "Offtakers" purchase electrical energy from renewable energy project owned by Project Companies.
- An "Offtaker" may purchase the electrical energy under a number of different mechanisms:
  - Physical delivery to the electric grid
  - "Behind-the-meter" or "BTM"
  - "Net-Metering" or "NEM"
  - "Remote Net Metering"
- The creditworthiness of the "Offtaker" is paramount to the long-term financeablity of a renewable energy project.

Hedge Providers

- Hedge Providers are traditionally institutional banks with commodity trading desks.
- Hedge Providers provide Project Companies with fixed/predictable cash flows through a commodity hedge when electrical energy generated from a renewable energy project is sold on "Merchant" basis.
- What is a "Merchant" power project? "Merchant" power refers to any power project that does not have a long-term Power Purchase Agreement. Electrical energy generated from a Merchant project is generally sold into the wholesale electricity markets, which means price per mWh is variable.

Hedge Providers (Cont.)

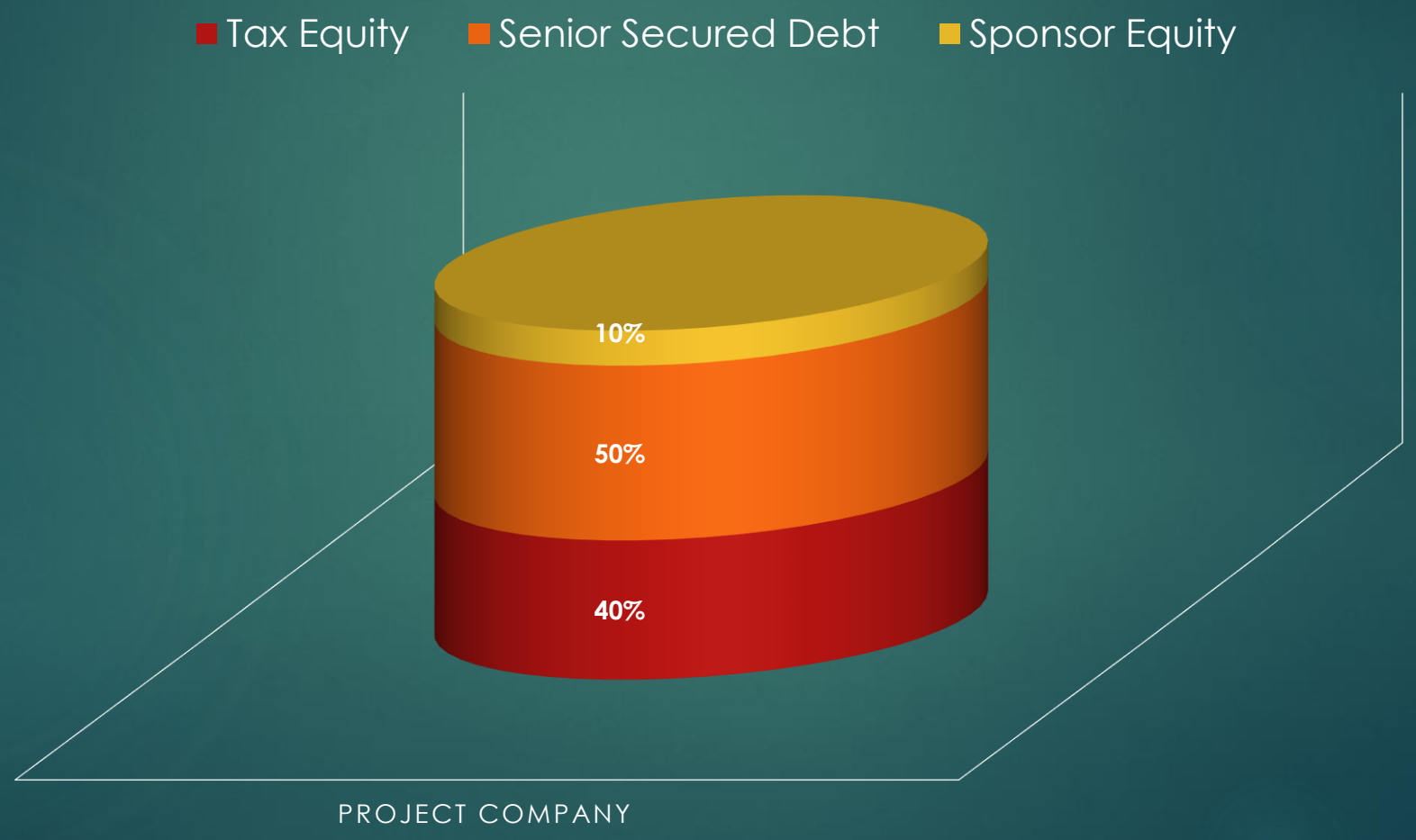
- Types of commodity hedges:
  - Synthetic or virtual Power Purchase Agreements
  - "Fixed" for "Floating" price swap (physical or financial settlement)
  - Proxy Revenue Swap
  - Solar Put
  - Retail Intermediation

The Capital Stack

- What is a "Capital Stack": The "Capital Stack" of a renewable energy project refers to the organization and hierarchy of all capital invested/contributed to a renewable energy project.
- A party's position in the Capital Stack is important because it will indicate an investment's:
  - Risk and return profile,
  - Priority to cash,
  - Priority to collateral in the event of a foreclosure.
- The Capital Stack of renewable energy projects are particularly important because of the interplay between debt and tax equity.

The Capital Stack (cont.)

SAMPLE SOLAR PROJECT CAPITAL STACK WITH TAX EQUITY INVESTOR



Questions

Alex Leff

Sive, Paget & Riesel P.C.
aleff@sprlaw.com
646.378.7230