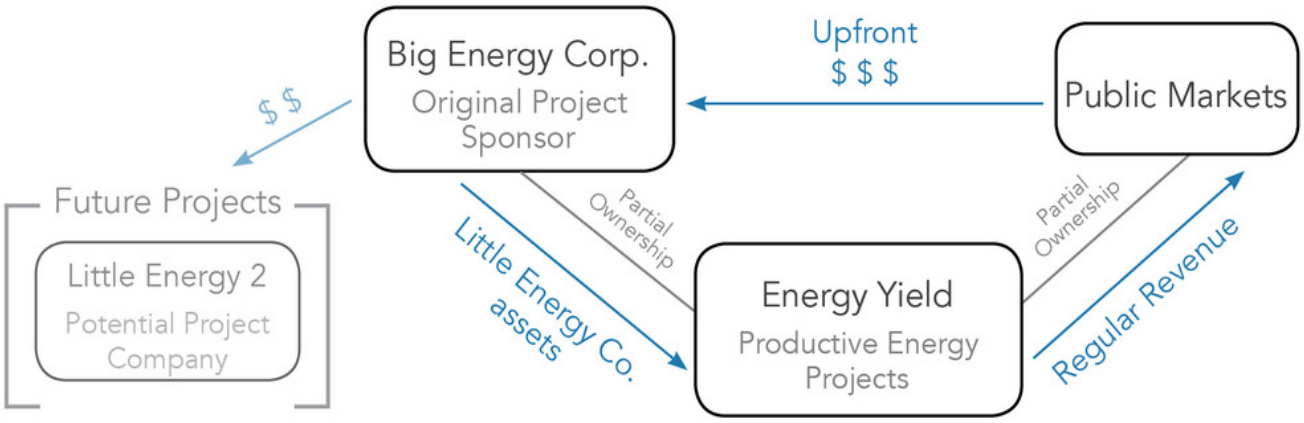
Energy Finance 101: An Intro to Yield Cos

By Kimble McCraw | Published: 07/24/14

This is the second paper in the Energy Finance 101 series. In the first paper, which covered Project Finance, we laid out a scenario in which you, the reader, are the CEO of Big Energy Corp., and you use Project Finance to develop a new energy project by creating Little Energy Co. In this publication, we build on that scenario to illustrate the use of Yield Cos, another increasingly common financing structure in the power sector.

You have just completed the project of your dreams at Big Energy, and you're ready to take on something new—but how can you do it? Little Energy, despite some challenges along the way, managed to build your project and is now producing energy. This is good news, but you have a lot of money tied up in Little Energy and there is a new project you'd love to invest in. Is there a way to fund the new project, "Little Energy 2," with the profits now coming in from the original Little Energy?

Perhaps. And the answer might lie in a Yield Co.



What is a Yield Co?

A "Yield Co" is a bit like a grown-up **Project Company** from **Project Finance**, with the big difference being the stage of development. Under project finance, the project company is generally created for a project that is under development, while a yield co is created around a project or number of projects that are producing predictable, stable **cash flows**. These cash-generating projects are

grouped together and "**spun off**" into a separate, **publicly traded** company. Doing this separates the risky projects, still under development from the **de-risked** projects already completed, lets the parent company recoup capital, and provides investors a stable investment option.

How it works

You, at Big Energy, have completed several projects, maybe a couple of solar farms, for example. While you still have more projects you're developing, the selected solar farms are already selling power (under their **power purchase agreements**) and generating **revenue**. If you maintain ownership of these projects, they'll return cash regularly for years, but it will also take years to completely recoup your initial investment. You may be short on capital to invest elsewhere while you are waiting—and that is where the yield co structure proves most useful. Instead of waiting years to be paid back by allowing the projects earnings to be slowly realized, you can put these projects together into a separate company, "Energy Yield," and list it on the public markets. By listing Energy Yield, investors can buy shares of its predictable future income, giving you at Big Energy some capital upfront to reinvest in other projects.

> ### The Time-Value of Money, or When $100 Isn't $100
>
> Yield cos, like many investments, rely on the concept of the time-value of money, or the concept that $100 today should be worth more than $100 tomorrow and even more a year from tomorrow. While the amount it should be worth varies based on what one could do with the money, companies take this into account when making investment or divestment decisions. In the case of Big Energy, it means that even though the income from Energy Yield might add up to, say, $100M over 20 years, investors won't be willing to pay $100M now, only paying for the present value of those future cash flows. Today's value for those future payments may be as low as $90M for the shares of Energy Yield after accounting for the time-value. You at Big Energy would evaluate the other options you have for investing the capital and determine whether you could make the $90M into more than $100M over those 20 years and invest in those options instead.

Investors may also be drawn in for two additional reasons; first, in many cases, a company like Energy Yield will be filled with newer projects with large upfront costs. If this is true, investors will likely pay a slight premium for Energy Yield, because it will have a large amount of **depreciation**, and, as a result, may not have any **taxable income**.

> ### A Quick Note on Income Statements
>
> Revenue, depreciation, taxable income, it can be confusing how they all fit together. One

> of the three main accounting statements (along with **balance sheets** and cash flow statements), the income statement shows a business's financial performance over a period of time, often quarterly or annually. It will show the revenues earned and expenses – both ones paid out and ones accrued from an accounting perspective, like depreciation.

Income Statement

	Revenue	How much money you've earned
–	Cost of Goods Sold	Also known as COGS
	Gross Profit	Sometimes called Gross Margin
–	Operating Expenses	Like R&D or Administration Cost
	EBITDA	Earnings before Interest, Taxes, Depreciation, and Ammortization
–	Depreciation	A portion of money previously spent on physical assets
	Operating Profit	Also known as **EBIT** – Earnings Before Interest and Taxes
–	Interest Expenses	How much you're paying on loans or to bond holders
	Taxable Income	Amount the government can charge taxes on
x	(1 – tax rate)	Amount of taxes owed
	Net Income	Profits or earnings

> One thing to particularly note: depreciation is taken out before taxes are calculated, but it's a **non-monetary expense**. As a result, when the depreciation expense is large, a company may not have any taxable income, but it still could have cash that can be distributed back to investors.

Secondly, investors may like Energy Yield, because there are projects still under development at Big Energy, which you might give Energy Yield the option to buy when completed, creating future value for the investors.

When are Yield Cos used?

Not all projects are ideal for the yield co structure. The first and most important requirement is that the projects in Energy Yield must produce stable, predictable revenues. For this reason, projects that have **power purchase agreements** or very predictable markets are generally required, as this lowers the risk to investors and the **cost of capital** to Big Energy. Other big factors in using yield cos are the age of the projects and the size of the group of projects. Many of the projects

that opt to use a yield co structure are on the younger side for two reasons – 1) this maximizes the remaining length of their power purchase agreements (and thus timeline of stable revenues) and 2) a younger "age" maximizes the remaining depreciation and thus time without corporate **tax liability**. When it comes to size, a company like Energy Yield is likely to be formed around $500M-plus in **assets**, mainly due to expense. Listing a company on the public markets isn't cheap, with **underwriters'** and lawyers' fees often amounting to more than $6M. On smaller listings, the expenses don't necessarily decrease linearly, making the expense too much too bear.

Where are Yield Cos being used now?

In recent months, we've seen several utilities in the U.S. spin off associated yield cos. NRG spun off NRG Yield, a portfolio of both renewable and conventional power generating projects, in mid-2013, while SunEdison listed TerraForm Power, a pure solar play, on the NASDAQ in July 2014. Originally a Canadian investment tool, these are becoming more common in renewables as a way to raise capital.

Conclusion

While yield cos aren't the right solution for every capital need, many utilities (similar to Big Energy Corp.) are utilizing them to recoup capital, while investors are using them to invest in stable renewables. By grouping already-developed projects, Big Energy can free up capital for reinvestment and develop even more energy projects, be they natural gas plants or solar farms.

Appendix

How do these differ from MLPs?

MLPs or Master Limited Partnerships are often compared to yield cos, but there are a few important differences. First, the kinds of assets that are eligible for the MLP structure are currently limited. Renewables cannot be included unless the proposed MLP Parity Act is passed. Second, MLPs use the partnership structure to lower the taxes on their assets – partnerships are only taxed on the investor/partner level, not the corporate level. Yield cos don't get this benefit, instead relying on depreciation or **tax loss carryforward** to mitigate corporate tax expenses, a less permanent option.

Glossary

Assets – anything a company owns that will bring it future economic value; can include cash, intellectual property, or equipment, among other things.

Balance Sheet – a snapshot of a company's assets, debts, and equity at a single point in time.

Capital – a fancy word for money, it can refer to both debt and equity investments

Cash Flow – the amount of cash being generated by a company; it is often different than net income or profit as there are non-cash expenses taken out before calculating net income.

Cost of Capital – when taking on either a loan or equity investment, this is how much the company will pay for the privilege of taking the money; in the case of loans, it would be the interest rate.

Debt – money lent to a company that will have a timeline for repayment and a guaranteed rate of return for the person loaning the money.

Depreciation – an accounting value for the amount a physical asset decreases in value from use; the IRS generally defines how much this is for various kinds of assets, like buildings, machinery, or vehicles.

De-risk – the finance term for reducing the likelihood that something bad, like a financial loss, will happen.

EBIT – Earnings Before Interest and Taxes or "operating profit", a measure often used to compare companies as it gets rid of differences due to capital or tax structure.

EBITDA – Earnings Before Interest, Taxes, Depreciation, and Amortization, this is an indicator of how good a company is at generating cash from its operating activities.

Equity – shareholders' equity or stock; money invested in a company on the belief—but not guarantee—that it will do well and pay returns.

Liability – something that a company is obliged to pay in the future, like loans, pensions, or money owed to suppliers.

Net Income – aka "earnings" or "profits," the amount a company made after accounting for all expenses and taxes.

Non-monetary Expense – something accounted for on the income statement at one time, but was paid for at another time, such as depreciation.

Power Purchase Agreement – a contractual agreement that many power generating stations have with a utility for the utility to buy the power produced.

Project Company – an independent company generally created to develop a new project while protecting the parent company's assets.

Project Finance – a financial and corporate structure that helps bring investment into specific projects.

Publicly Traded – a descriptor for a company that sells equity (aka shares) on the public markets, like stock exchanges.

Revenue – the amount of money a company is earning before taking into account expenses.

Spin-off – the severing of some operating activities from one company into a new company; the parent company often maintains some ownership of the new company's equity.

Taxable Income – the amount of earnings a company has after accounting for all expenses, including non-cash expenses, on which the government can collect tax.

Tax Liability – the amount of taxes a company owes, generally based on taxable income; this amount can be negative, which would result in...

Tax Loss Carryforward – loss from one year used in a future year to reduce the tax liability from a profitable year.

Underwrite – when a bank takes on the risk of selling shares or bonds for a company.

Additional Resources

For More Information on Yield Cos:

Charles L. Park, "Renewable Energy and the Capital Markets," webpage, Goldman Sachs, April 2014. Accessed July 21, 2014. Available at: http://www.goldmansachs.com/our-thinking/trends-in-our-business/renewable-energy-and-the-capital-markets.html.

Keith Martin, "Yield Cos Compared," *Special Update*, Chadbourne & Parke LLP, December 2013. Accessed July 21, 2014. Available at: http://www.chadbourne.com/files/Publication/23563110-8a1e-40f0-88ba-b6d868e8cb56/Presentation/PublicationAttachment/2198b0b7-d98f-4208-8d23-b7b15a92450b/YieldCosCompared_Dec13.PDF.

"New Financing Strategies," *Project Finance NewsWire*, Chadbourne & Parke, LLP, August 2013, pp. 1-8. Accessed July 21, 2014. Available at: http://www.chadbourne.com/publications/List.aspx?PublicationTypes=c4c0fc30-0c2f-4927-9ccd-0334c95303a4.

Roy Torbert and Dan Seif, "A Rock that Churns out Cash: Solar YieldCos," blog, *RMI Outlet*, Rocky Mountain Institute, July 17, 2013. Accessed July 21, 2014. Available at: http://blog.rmi.org/blog_2013_07_17_a_rock_that_churns_out_cash_solar_yieldcos.

For More Information on Income Statements:

Richard Loth, "Understanding The Income Statement," Investopedia. Accessed July 21, 2014. Available at: http://www.investopedia.com/articles/04/022504.asp.

For More Information on the Time Value of Money:

Aswath Damodaran, "A Primer on the Time Value of Money," NYU Stern. Accessed on July 21, 2014. Available at: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/PVPrimer/pvprimer.htm.

For More Information on MLPs:

"The Book of Jargon MLPs," The Latham & Watkins Glossary of MLP terminology, Latham & Watkins LLP, 2013. Accessed July 21, 2014. Available at: http://www.lw.com/mlp-portal.

For an example of a specific Yield Co:

"NRG Yield," NRG Energy, Inc, Accessed July 21, 2014. Available at: http://investor.nrgyield.com/phoenix.zhtml?c=251846&p=irol-irhome.