



## YieldCos - Can the Solar Industry Keep Up?

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Right now is a good time for the solar market. Industry growth expectations are high. Equipment and installation costs have declined, and more recently, there is an emerging expectation for cheaper capital to enter the sector. Equity vehicles, such as Real Estate Investment Trusts (REITs), Master Limited Partnerships (MLPs), and YieldCos, have been promoted as ways to enable public investment in solar projects. To date, neither REITs nor MLPs have found success penetrating the sector, primarily due to structuring conflicts with tax equity. YieldCos, however, have gained some traction, and many expect their popularity to grow, taking the solar sector along. In this article we discuss YieldCos and how they apply to the US solar sector.

YieldCos, such as NRG Yield (NYLD) and Pattern Energy Group (PEGI), are corporations that formulaically distribute cash to public shareholders. YieldCo stocks, which receive dividends like bonds receive interest payments, are valued on two metrics: (1) dividend yield and (2) expectations for growth in dividends. NYLD currently trades at a trailing yield of 2.4% and PEGI trades at a trailing yield of 4.5%. The difference between their valuations is likely the result of the market's expectations for growth. To attain that growth, management of YieldCos must be able to obtain *contracted* projects that meet certain cash flow and operating criteria.

In theory, projects of any kind will make economic sense if investors have low return requirements. In practice, however, developing and completing solar projects to populate YieldCos can be difficult, particularly in the United States.

Some factors to consider regarding U.S. solar and YieldCos include:

- YieldCo transactions require critical mass. Most of the solar projects slated to be "dropped down" into NYLD are large, but many off-taking utilities in the United States are shying away from large centralized projects. Given the trend toward smaller solar projects, reaching critical mass for YieldCos will be challenging. The amount of work (and fees) required to put together a large project is nearly the same as for a small project.
- The US solar industry may not be able to supply enough quality megawatts to satiate YieldCo growth. Solar City (SCTY) recently securitized \$54 million of debt on approximately 5,000 of their projects. Think about how many people it takes to develop and construct 5,000 projects. SolarCity is the largest rooftop developer in the United States, but \$54 million was as much as they could muster. YieldCo equity on those same 5,000 projects would have been less than \$54 million, so we wonder if the solar industry can supply enough quality projects to meet YieldCo growth expectations.
- Tax incentives with restrictions complicate project structuring. For example, most of the solar
  assets factored into NYLD have been grandfathered with the Section 1603 Cash Grant, which
  has minimal holding period and income restrictions. Now that the Cash Grant has expired, it
  will be more difficult, but not impossible, to place solar projects into YieldCos.
- How much better is the capital provided by a YieldCo? This calculation must be done on a project-by-project basis, but after development and transaction costs and tax effects, we don't think YieldCo capital will prove to be substantially cheaper.





YieldCo dividend requirements and growth are highly sensitive to interest rates. The basic math in valuing an asset (or equity) is to divide the annual cash flows (dividends) by the cost of capital. If treasury rates increase by 1% and YieldCo dividend requirements subsequently increase from 4% to 5%, the asset (or equity) will decrease in value by 20%. The only way to make up for that is to increase PPA rates. By all means, all asset classes will be negatively affected by higher interest rates, but YleldCos are more sensitive due to their dividend-based valuation criteria.

In theory, contracted solar assets are ideal candidates for YieldCos. Cash flow is steady and under long-term contracts, the assets require minimal maintenance, and they degrade at a predictable and shallow rate. However, successfully populating a YieldCo with properly completed and solidly contracted projects requires a lot of specialized resources. Although there are numerous installation companies and equipment suppliers, few companies besides First Solar (FSLR), SunEdison (SUNE), and SunPower (SPWR) have demonstrated a consistent ability to develop and complete solar projects. There is a lot that we don't know about those companies' pipelines and there are conflicts that arise when suppliers or parent companies "sell" completed projects to related companies (YieldCos).

The understanding of YieldCos and their ability to achieve their growth targets, at least outside of Canada where they have enabled public investment in regulated generating assets, is not yet well developed in the United States. Don't get us wrong, any vehicle that accurately reflects cash flows from solar projects is beneficial for the industry and investors. Furthermore, YieldCos can work with tax equity.

But the development and structuring of U.S. solar projects is more difficult than most might believe; the relatively low completion rate of grid-tied solar projects attests to that reality. A successful YieldCo needs a strong sponsor with a demonstrated ability to underwrite solar projects and a willingness to provide transparency into their pipeline of contracted projects.

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