

Investing In Renewable Energy Stocks: Performance of Yield Cos in US

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Abstract: *Purpose – Renewable Energy company stocks is gaining traction for yielding lucrative returns in covid and post covid world. Moreover, there has been a lot of talk about ESG investing and its potential benefits to the future economy. Most of the top companies in terms of market capitalization often use yield cos to shift the risks and gain good returns. The purpose of the paper is to focus on how the renewable energy companies having yield cos operate and what makes their structure unique for investment.*

Design/methodology/approach – The stock data for the top 5 renewable companies with yield cos are taken from Yahoo Finance, Cap IQ for the years 2010 to 2023. Stock price analysis is carried out to determine how the stocks performed compared to S&P500 index.

Findings – We could see that the yield co structure for the renewable companies remains an attractive and viable mechanism for renewable energy projects and the companies. The renewable companies most of the time bet the market index suggesting that the stocks have significant potential in the future.

Originality/value – The paper primarily focuses on the renewable energy companies which follow the yield co structure. First, the historic trend from 2010 has been analyzed to determine how the companies evolved over time. Second, correlation analysis has been performed with the index to determine how it compared against the market. Third, detailed analysis has been performed on the impact of yield cos and its potential benefits.

Keywords: Stock investing, ESG, Correlation, Econometrics

I. INTRODUCTION

Yield Cos remain a popular and attractive investments especially in sustainable investing and renewable energy sectors. Funding a big energy project seems to be a key challenge in the long run. For this participation of large institutional investors is essential to fund the project and to attain significant returns. To fulfill this, most of the renewable energy companies create YieldCo.

US renewable energy stocks received a significant attraction when the concept of Yield Cos was introduced in early 2010s and showed a massive boom in 2014 followed by bust in mid to late 2015. The reason for bust in 2015 was related mainly to the bankruptcy of SunEdison (SUNE) and the investors were losing faith in the ability of the yield cos to pay the dividends [1].

This paper mainly focuses on the evolution of Yield Cos to understand the reasons for boom and burst in late 2015. On further analysis, we conclude that the renewable energy stocks have significant success potential in the future and will attract many investors.

II. YIELD COS

2.1 Yield Co Structure

Yield Cos typically differ from large pool of renewable energy companies, where they operate independently of the parent towards achieving a specific goal. They are partially owned subsidiaries of the Principal or the Parent. As shown in the Figure 1, the Parent or the Renewable energy company sells an operating project to the Yield Co. The main reason for the parent to do this is because it wants the risks to be shifted to the yield co which will help them attain additional funds at a low cost of capital [2]. Yield co can be defined as the public company which holds the portfolio of several renewable energy operating assets and has a highly stable and predictable cash flows.

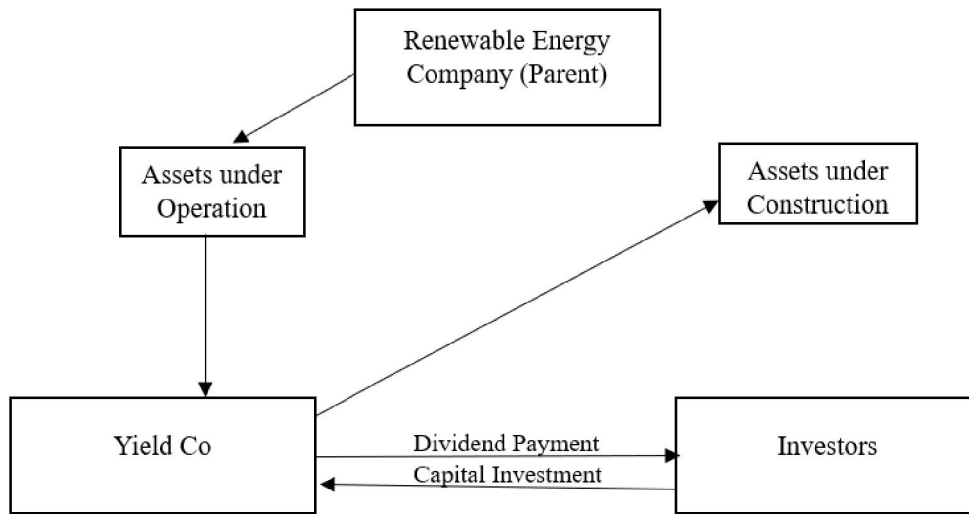


Figure 1

Some of the characteristics of Yield cos include

- **Asset Ownership:** YieldCos own and operate a portfolio of income-generating assets, often renewable energy projects. These can include solar power plants, wind farms, or other infrastructure assets.
- **Stable Cash Flows:** The primary goal of YieldCos is to generate a predictable and stable cash flow. Revenue is generated through long-term power purchase agreements (PPAs) or other contractual arrangements that ensure a steady income stream.
- **Dividend Distribution:** YieldCos distribute a significant portion of their cash flow to investors in the form of dividends. This makes them attractive to income-seeking investors, as they can provide a relatively stable income [3].
- **Dividend Growth:** In some cases, YieldCos aim to grow their dividends over time. As they acquire more income-generating assets, the cash flow and, consequently, the dividends can increase.
- **Low-Risk Profile:** The predictable cash flows and long-term contracts associated with renewable energy projects contribute to a lower-risk profile compared to some other types of investments.

Yield Cos seek funds from the investors to fund the operating projects and in return they provide dividends to the investors from the project's cash flows.

2.2 Voting Interests

Yield Cos have dual class structures; Class A and Class B shares. Class A shares are owned by the principal company which has higher voting interests. Class B shares are allocated to the investors which has minority voting interests [4]. As shown in the figure 2, the idea behind this process is that the parent wants to have majority control of the yield cobut it will not necessarily have economic interest to entitle dividends. On the other hand, investors have 100% economic interests to get the dividends. For example, if the parent has 60% voting rights, investors will have 40% of the voting rights, but if the investors have 80% economic rights, parent will only be entitled to 20% of the dividends.

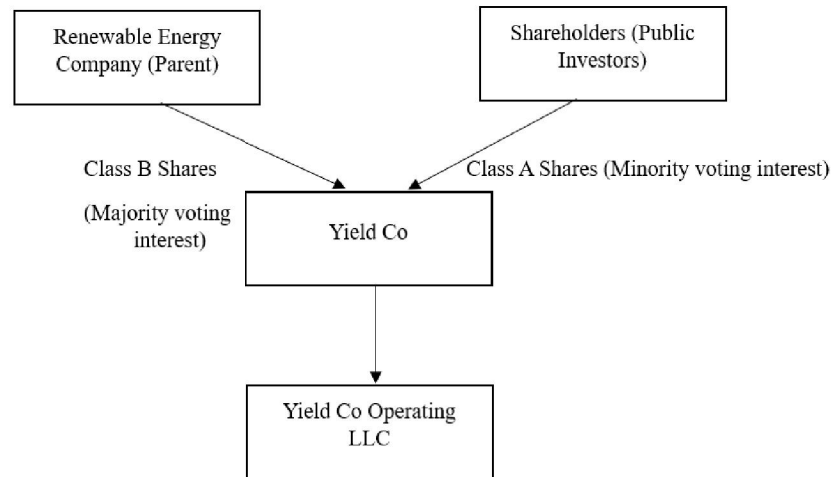


Figure 2

III. DATA

The data used for the analysis ranges from 2010 to 2022 for the stocks Brookfield Renewable Energy Corporation (BEPC), Clearway Energy (CWEN), NextEra Energy Partners (NEP), Atlantica Yield (AY) [5]. All the data has been taken from Yahoo Finance and analysis was performed in Python. The rationale behind choosing these stocks are they are largest companies in terms of market capitalization in US. The below table provides the parent and the yield co for each of the companies.

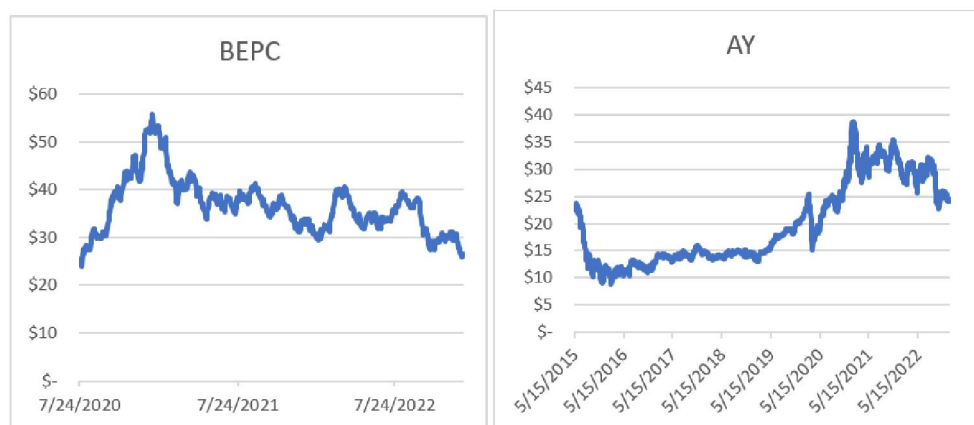
Company (Yield Co)	Parent Company
Brookfield Renewable Energy (BEPC)	Brookfield Renewable Partners
Clearway Energy (CWEN)	NRG
NextEra Energy Partners (NEP)	Next Era Energy
Atlantica Yield (AY)	Abengoa

Table 1

All the analysis were carries out by taking the adjusted closing price listed in the Yahoo Finance.

IV. YIELD CO TRENDS

Brookfield announced its acquisition of 38% of TERP and started trading from 07/24/2020 in the ticker BEPC. Previously it was trading with the ticker TERP. Unfortunately, previous data was not available from Yahoo Finance.



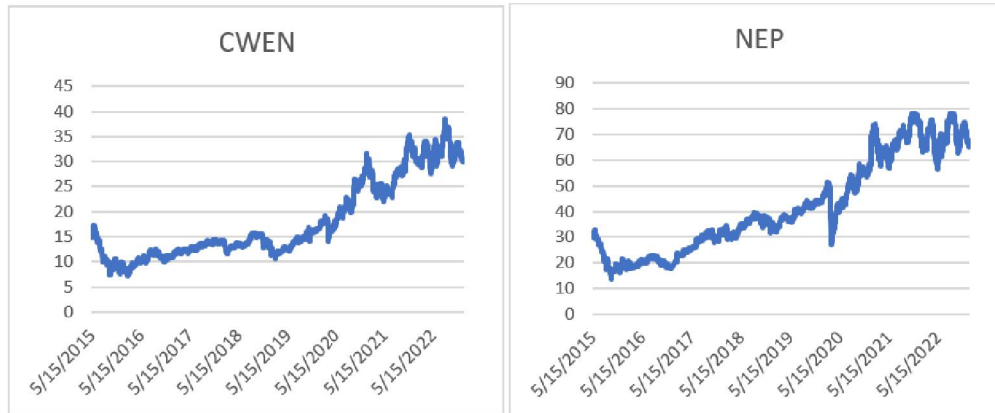


Figure 3

From the figure 3 we could see that the company’s value peaked in the covid times as the market for renewable energy stocks looked attractive and the company was expanding with more operating projects. For the stocks AY, CWEN and NEP we could see that there was a significant bust in the year 2015 and from then all the stocks seemed to have performed well.

On analyzing further into what caused the bust of yield cos in 2015, between 2014 and 2016 there was a collapse in oil prices. As per the data from World bank [6], the global economy faced one of the largest price declines during that time. This made it difficult for the renewable energy companies to generate revenues and most of them were not performing well. Followed by multiple challenges, SunEdison, one of the largest solar energy providers, declared bankruptcy questioning the credibility of the yield cos. Investors wary of the risks associated with the yield cos decided to pull out of most of the yield co investments which drove down the price of most of the renewable energy companies.

From the bust in 2015, as seen in the figure 3, most of the yield cos have performed consistently well and have been in the upswing.

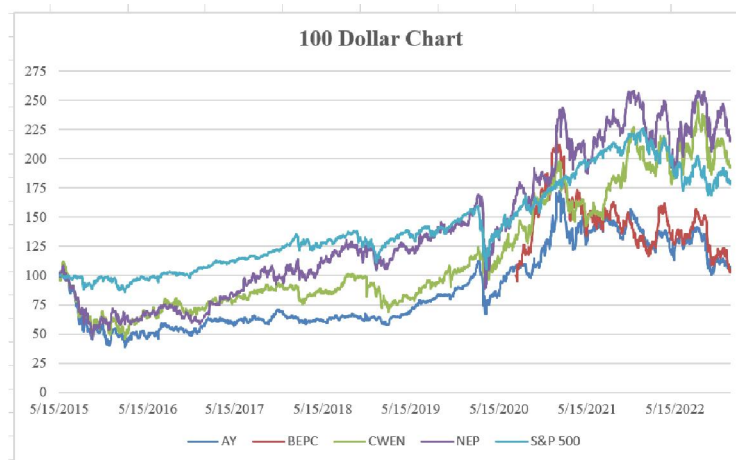


Figure 4

The figure 4 shows the return of the yield co stocks had we invested \$100 in 2015 how much our returns would have been now. As we could see that in 2015, all the yield co stocks were down by nearly 50% and from then there has been steady increase in the returns. Some of the observations to not are NEP and CWEN in recent times have been outperforming the S&P500 compared to AY and BEPC.

One peculiar observation this paper wants to explore is how correlated are the yield co company stocks. As noted in 2015, the fall of SunEdison led to the downfall of all the yield cos. Is it the same scenario right now as well? The figure 5 presents the correlation of the yield co from 2015 to 2022.

	AY	BEPC	CWEN	NEP	^GSPC
AY	1.000000	0.484763	0.576988	0.540988	0.447201
BEPC	0.484763	1.000000	0.439418	0.452389	0.428456
CWEN	0.576988	0.439418	1.000000	0.597779	0.447583
NEP	0.540988	0.452389	0.597779	1.000000	0.465574
^GSPC	0.447201	0.428456	0.447583	0.465574	1.000000

Figure 5

We could see that all the stocks were correlated to 50-60% but not to a significant extent. Another interesting observation we could find is these stocks are not highly correlated to S&P500. The potential reason for the low correlation is because of the stable cash flows from the operating projects and investors perceive that as a low-risk entities offering a stable beta.

V. CONCLUSION AND YIELD COS FUTURE PROSPECTS

Yield Cos have a unique principal agent structure which looks like an attractive investment opportunity. The strategic relation between them is crucial in determining how the company will be performing. As seen in the SunEdison bankruptcy, if the company borrows excess funds without backing operating projects, yield cos would suffer a significant loss as it will not be able to pay back the dividends to the investors. Following a very clear and transparent approach by the companies will gain trust from the investors will indeed will get more investments and operating assets for yield cos.

Yield cos can grow the dividends steadily in line with the operating cash flows will guarantee that yield cos are sustainable in the long run. After a bust in 2015, as we have seen in this paper, the stocks have been growing steadily with the companies following a more transparent approach. All the above factors combined, yield cos have a effective mechanism to fund growth and looks a very attractive investment opportunity.

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