

Pattern Energy Group business analysis (NASDAQ: PEGI)

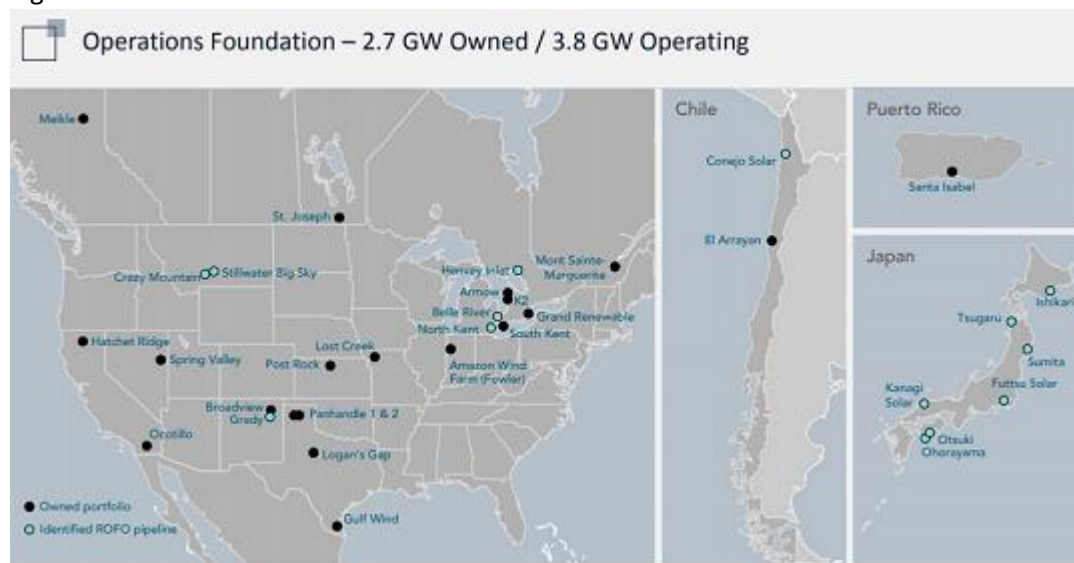
Pattern Energy has a dividend yield of 9%.

I analyze the risk reward within 2 scenarios where the net present value range is between \$10 and \$28.

Company overview

PEGI is a power producer focused on wind energy projects mostly in the U.S. with a few project in Canada, Puerto Rico, Chile and a strong development pipeline in Japan. There are always operational issues with such a diversified portfolio and the company has problems in Puerto Rico and Texas.

Figure 1 PEGI's assets



Source: [PEGI](#)

The projects in Japan were acquired in Q1 2018 where a cash flow return of around 10% is expected. Japan has to grow its wind energy production from 3 GW to 36 GW by 2030 and PEGI's sees a great opportunity for long term growth there. The management sees the Japan portfolio growth to 1 GW in the next 5 years as it has been the case for the Ontario portfolio in the last 5 years.

The company has recently sold one of the Chilean plants and evaluates other acquisitions with \$200 million available for investments.

Apart from owning and managing projects for their yield, PEGI is branching out into project development as it recently invested in [Pattern Development 2.0](#). The current ownership is 20% but this could grow to 30% by the end of the year thanks to additional investments. The goal with the development expansion is to reach better returns as developments have higher returns on invested capital and also earn fees on the operation and management side of the projects.

The current portfolio has 2.7 GW under ownership and 3.8 GW operated. The goal is to reach 5 GW by 2020. The company can grow its existing portfolio by 42% just from its identified right of first offer on developing projects.

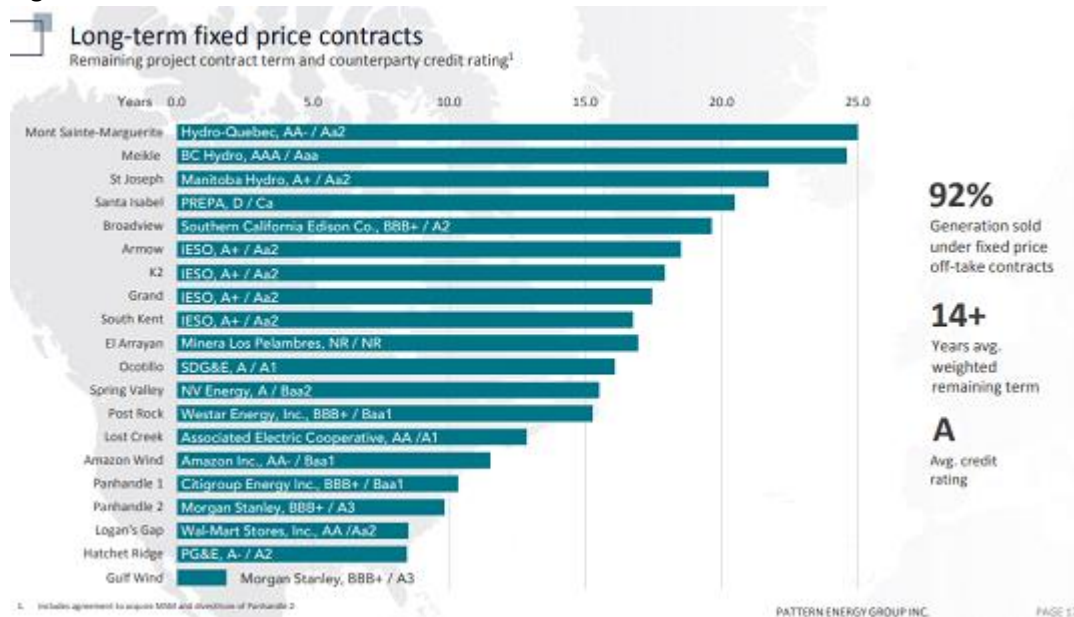
Figure 2 PEGI's iROFO portfolio



Source: [PEGI](#)

The current average project life is 14 years with 92% of energy offtake contracted and the customers have good credit ratings.

Figure 3 PEGI's customers



Source: [PEGI](#)

The company pays a dividend of \$1.68 which gives a 9.09% dividend yield and while there is no opportunity for short term dividend growth the management hopes to bring down the dividend pay-out ratio from 100% to 80% without cutting the dividend. Since the IPO in 2014 the company has increased its dividend 15 times.

The 2018 guidance is for cash available for distribution (CAFD) to be between \$151 and \$181 million where \$165 is needed to cover the dividend.

The management is committed to grow cash available for distribution by 3% to 4% per year without access to common equity. This will be achieved by driving down the dividend payback ratio to 80% from 100% while reinvesting the cash and by improving efficiencies. Further, they expect dividends from the Pattern Development 2.0 project by 2020 and with better capital costs they hope for high single digit CAFD growth.

The management also expects to recycle capital and sell projects with a 6% return to invest there where they can get a 10% return.

Risks – a few headwinds for the sector

The first issue for PEGI are higher interest rates. Even if their debt is partly fixed and mostly hedged with interest rates swaps, higher interest rates affect future refinancing which is negative for cash flows.

Figure 4 PEGI's debt structure

Table 4: Debt structure as of March 31, 2018. The table shows debt components categorized into Corporate-level and Project-level, with columns for dates (March 31, 2018 and December 31, 2017), Contracted Interest Rate, Effective Interest Rate, and Maturity.

| | As of March 31, 2018 | | As of March 31, 2017 | | Maturity |
|---|----------------------|---------------------|--------------------------|-------------------------|----------------|
| | March 31, 2018 | December 31, 2017 | Contracted Interest Rate | Effective Interest Rate | |
| Corporate-level | | | | | |
| Running Credit Facility | \$ 248,000 | \$ -- | none ⁽¹⁾ | 3.11% ⁽²⁾ | |
| 2010 Notes | 250,000 | 250,000 | 4.26% | 4.69% ⁽³⁾ | July 2020 |
| 2014 Notes | 150,000 | 150,000 | 0.83% | 0.83% | February 2024 |
| Project-level | | | | | |
| <i>Fixed interest rate</i> | | | | | |
| 30-Year US 2017 zero bond | 84,874 | 89,212 | 3.26% | 3.26% | March 2029 |
| 5-year JPY zero bond | 102,800 | 104,878 | 0.77% | 0.77% | September 2023 |
| <i>Float interest rate</i> | | | | | |
| Oversea commercial bank loan | 289,202 | 289,539 | 3.87% | 4.09% ⁽⁴⁾ | June 2021 |
| 30-Year US commercial bank loan | 81,074 | 80,282 | 4.25% | 4.77% ⁽⁴⁾ | March 2028 |
| Spring Valley bank loan | 123,800 | 122,478 | 4.05% | 3.93% ⁽⁴⁾ | June 2020 |
| 30-Year JPY bank loan ⁽⁵⁾ | 157,899 | 171,407 | 3.84% | 3.85% ⁽⁴⁾ | November 2020 |
| Variable rate commercial bank loan ⁽⁶⁾ | 54,307 | 54,305 | 4.07% | 4.07% ⁽⁴⁾ | April 2027 |
| Variable rate bank loan ⁽⁷⁾ | 211,746 | 249,057 | 3.25% | 3.82% ⁽⁴⁾ | July 2024 |
| Other bank loans | 11,004 | -- | 1.57% | 1.67% | December 2013 |
| Overseas bank loans | 44,857 | -- | 0.87% | 0.87% | February 2014 |
| Equity investment bank loans | 50,982 | -- | 0.72% | 0.72% | March 2018 |
| Equity investment bank loans | 80,852 | -- | 3.96% | 3.96% | July 2020 |
| Market hedge financing bank obligations | 182,879 | 182,879 | 1.87% | 1.87% | December 2022 |
| Unamortized premium discount, net ⁽⁸⁾ | 2,274,019 | 1,967,367 | | | |
| Unamortized financing costs ⁽⁹⁾ | (24,062) | (21,628) | | | |
| Total debt, net | \$ 2,497,224 | \$ 1,995,713 | | | |
| As reflected on the consolidated balance sheet | | | | | |
| Running Credit Facility | \$ 248,000 | \$ -- | | | |
| Current portion of long-term debt, net of financing costs | 11,391 | 51,899 | | | |
| Long-term debt, net of financing costs | 2,127,833 | 1,873,715 | | | |
| Total debt, net | \$ 2,487,224 | \$ 1,925,614 | | | |

⁽¹⁾ Refer to Running Credit Facility for relevant details.
⁽²⁾ The amount for the 30-Year zero bond, the interest rate on the loan was 3.11% through September 30, 2017, and December 31, 2017, respectively, which differs from the contractual rate of each loan due to project-level repricing.
⁽³⁾ Includes impact of conversion option, but does not include discount on the issuance of conversion option.
⁽⁴⁾ The effective rate for the 2017 zero bond.

Source: [Annual report](#)

The current interest expense should be around \$100 million (\$25.1 in Q1 2018). On total debt of \$2.5 billion implies a 4% average interest cost where Japanese loans cost from 0.72% to 3% while U.S. loans go up to 6.6%. A 1% interest rate increase would over time add \$25 million to the cost and thus be detrimental to growth, new investments and dividends. Given the hedges this will not evolve rapidly but it is good to keep in mind.

Further, as the current situation indicates flat cash flows with slow growth where anything can happen, the market values PEGI as a no growth stock where a PE ratio of 10 isn't that low.

Another threat to the company are renewable tax credits and subsidies that are still there for now but might be withdrawn at any moment as you can never count on politicians. Also, PEGI monetizes its tax losses coming from the high amortization rates and the current lower tax environment might make this less attractive for tax credit investors.

An issue with renewables is that when the wind blows or the sun shines, there is often energy overproduction that lowers prices negatively affecting revenues for companies.

A dividend cut would also be detrimental. Further, with such long-term businesses a lot can happen in 10 years and you might see your returns decline which is the reason behind the 9% yield.

The key with PEGI is its debt, interest rates, interest rate swaps, currency hedges, [tax credits](#) and debt covenants. If at some point those are breached, it could lead to trouble as it was the case with [other YieldCos in the past](#).

Investment scenarios

If all goes well, PEGI is fairly priced for a 10% return. (3% growth rate, 10% discount rate, final value at 10 CAFD valuation)

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|----------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| CAFD | \$1.62 | \$1.67 | \$1.72 | \$1.77 | \$1.82 | \$1.88 | \$1.93 | \$1.99 | \$2.05 | \$2.11 | \$2.18 | \$2.24 | \$23.10 |
| ALL GOES | \$1.47 | \$1.38 | \$1.29 | \$1.21 | \$1.13 | \$1.06 | \$0.99 | \$0.93 | \$0.87 | \$0.81 | \$0.76 | \$0.71 | \$6.69 |
| GREAT | | | | | | | | | | | | | |
| SUM PV | \$19.32 | | | | | | | | | | | | |

If we see a 20% CAFD decline in the next years due to government subsidies being removed, the fair value is \$15.64.

| 20% lower CAFD | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|----------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| INTERST RATES | \$1.62 | \$1.67 | \$1.33 | \$1.37 | \$1.42 | \$1.46 | \$1.50 | \$1.55 | \$1.59 | \$1.64 | \$1.69 | \$1.74 | \$17.94 |
| SUBSIDIES | | | | | | | | | | | | | |
| Technology | \$1.47 | \$1.38 | \$1.00 | \$0.94 | \$0.88 | \$0.82 | \$0.77 | \$0.72 | \$0.68 | \$0.63 | \$0.59 | \$0.55 | \$5.20 |
| SUM PV | | \$15.64 | | | | | | | | | | | |

If CAFD falls 50% due to higher interest rates and lower energy costs the value is \$10.85.

| 50% lower CAFD | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|----------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| | \$1.62 | \$1.67 | \$0.83 | \$0.86 | \$0.89 | \$0.91 | \$0.94 | \$0.97 | \$1.00 | \$1.03 | \$1.06 | \$1.09 | \$11.21 |
| | \$1.47 | \$1.38 | \$0.63 | \$0.59 | \$0.55 | \$0.51 | \$0.48 | \$0.45 | \$0.42 | \$0.40 | \$0.37 | \$0.35 | \$3.25 |
| SUM PV | | \$10.85 | | | | | | | | | | | |

However, if PEGI does well and the market gives it a 20 valuation for a 5% yield, its value goes to almost \$28.94.

| 100% CAFD | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|-------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 5% discount | \$1.62 | \$1.67 | \$1.72 | \$1.77 | \$1.82 | \$1.88 | \$1.93 | \$1.99 | \$2.05 | \$2.11 | \$2.18 | \$2.24 | \$23.10 |
| | \$1.54 | \$1.51 | \$1.48 | \$1.46 | \$1.43 | \$1.40 | \$1.37 | \$1.35 | \$1.32 | \$1.30 | \$1.27 | \$1.25 | \$12.25 |
| SUM PV | | \$28.94 | | | | | | | | | | | |

Conclusion

Given the above scenarios and the current price, PEGI will most probably deliver a yield of around 7% to 10% over time. If all goes well it will be 10% and if higher interest rates and regulatory changes put pressure on CAFD it could go down to 5% or even lower. If you are happy with a probabilistic

return of around 7% and want a sustainable player in your portfolio, PEGI is an option to look at. However, I think there are better options in the environment and that there could be better buying opportunities. If we see a dividend cut, higher interest rates or nature doesn't collaborate as expected, the stock could be hit hard. This would also create a better entry point, especially if you buy this when interest rates start to go down again.

A lot of scenarios but a stock to keep an eye on and see how it fits your portfolio.