

April 29, 2017

## TerraForm Global Inc.

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Sector: Utilities

Industry: Diversified Utilities

Current Price: \$ 4.75

Target Price: \$ 7.50

### Company Description:

Terraform Global owns and operates renewable solar and wind powerplants in many countries including Brazil, Uruguay, India, China, Malaysia, Thailand, and South Africa. Terraform currently has a net capacity of 916.4 megawatts and continues to grow its portfolio of powerplants.

### Buy

EBITDA Margin 2016(Expected)	71%
Avg Volume	1,135,544
Market Cap	\$820 M
EPS	-\$1.7



### Thesis:

Terraform Global is in an industry that is experiencing a secular shift which they are well positioned to take advantage of. Terraform has been able to grow rapidly through building new power plants and acquisitions of existing ones but these projects have been financed mostly by debt which has quickly deteriorated their financial health and ability to continue to grow. Once TerraForm is acquired by Brookfield Asset Management, the partnership should provide enough liquidity for TerraForm to continue growing its operations while repaying principal on its debt which will reduce the overall financial risk of the company and will be reflected in the share price.

### Catalysts:

1. Completion of acquisition by Brookfield Asset Management and/or completion of SunEdison bankruptcy case (1-6 months)
2. Additional policies and regulations increasing the rate at which regions invest in and use energy from renewable sources (1+ years)
3. Accelerating principal repayment of debt Shift towards optimal capital structure (6 months +)

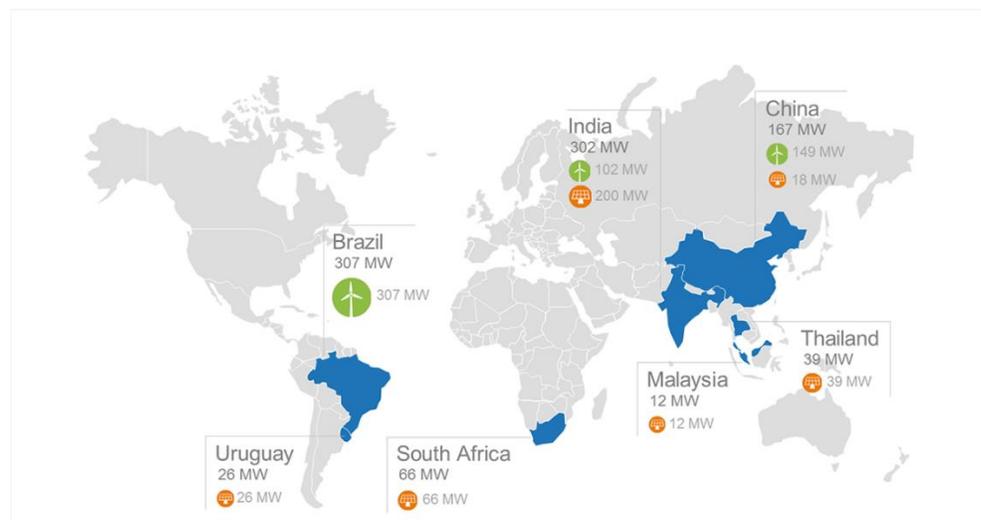
## Macroeconomic / Industry Trends

### ***The growing use of renewable energy across the world:***

There is, without a doubt, a secular change in the way we produce and consume energy especially in the form of electricity. Consumers comprised of countries, communities, and households increasingly demand that the energy they use is from a sustainable or renewable sources. Governments across the world continue to support renewable energy policies. These policies are meant to [“remove barriers, attract investment, drive deployment, foster innovation, and encourage flexibility in energy infrastructure”](#). In Asia and the Pacific, India has been very active in expanding its policies to promote renewable power through metering policies and the use of tendering and many Pacific Islands have targets and/or are currently 100% renewable. The EU calls for 27% of total power from renewable sources by 2030 with acceleration seen in France and Eastern Europe. The Latin America and Caribbean regions are at the forefront of renewable energy use and are attractive areas for energy projects because of the low bid prices.

### ***Cheaper to build and maintain (relative to history):***

As a greater number of governments and companies invest in the research and development of renewable energy technology, the cost to develop massive projects and to maintain them will undoubtedly go down which we have already seen over the past few years. This is the effect of necessity and innovation which has made renewable energy projects more realistic as an investment for utility companies and REIT's.



\*This map represents where TerraForm Global operates including the types and output of each region

As the global renewable energy infrastructure grows, especially on an industrial level, supply growth will very likely outpace demand growth, due to federal subsidies in addition to the overall secular shift towards renewable energy, and the cost per unit (\$/Megawatt or megawatt hour) will be lower (economies of scale). Utility firms are already beginning to offer options to have part or all the electricity provided to their homes/buildings be from renewable sources which means they most likely see a positive future for the industry.

The manufacturers of batteries that have greater efficiency, like General Electric and Tesla, have also helped solve the expensive problem of storing the energy and continued innovation will certainly be a tailwind for the industry.

### ***Growth in demand for electricity if global economic activity increases.***

It is my observation that as the world emerges from a prolonged period of low growth and into increased economic activity the demand for energy will increase and therefore greater demand for renewable sources. It is reasonable to assume, because of the growth momentum that renewables have had, the increase in capacity will mostly come from renewable sources.

## Recent Developments

March 07, 2017: TerraForm Global, Inc. has entered into merger agreement with Brookfield Asset Management. Brookfield to acquire TerraForm Global for \$787 million in cash and will take on \$455 million in debt which represents an enterprise value of \$1.3 billion. This merger is expected to be complete in the second half of 2017 and is subject to approval by the majority of Class A shareholders, regulatory approvals, and resolution of certain litigation.

TerraForm has entered into a settlement agreement with previous owner, SunEdison, regarding the Chapter 11 bankruptcy of SunEdison. Brookfield, together with its institutional partners, will purchase all outstanding Class A shares of the Company, following the exchange of SunEdison's Class B shares and TerraForm Global, LLC Class B units.

This acquisition is likely to open up many doors for TerraForm Global in the form of new project opportunities in other countries, accelerated project completion, administrative support, and principal debt repayment.

## Operating and Investing Activity

TerraForm owns and operates solar and wind powerplants in the following regions with their contribution to overall revenues.

	2012	2013	2014	2015
<b>Revenues</b>				
Brazil				15%
China		4%		14%
India	100%	92%	6%	27%
Malaysia		4%	50%	7%
South Africa			23%	35%
Thailand			18%	2%
<b>Total Revenues</b>	<b>1.5</b>	<b>22.2</b>	<b>39.4</b>	<b>124.1</b>

Since 2012, they have been able to maintain EBITDA Margins between 59 and 66% but have yet to be profitable on a net basis due to

their large interest expense. The largest operating expense for Terraform and this industry is the cost of maintaining their plants and equipment.

Column1	2012	2013	2014	2015	2016E
<b>Total Revenue</b>	<b>1.5</b>	<b>22.2</b>	<b>39.4</b>	<b>124.1</b>	<b>217.62</b>
<i>Growth Over Prior Year</i>		1,337.6%	77.7%	214.6%	75.34%
<b>Gross Profit</b>	<b>1.5</b>	<b>20.5</b>	<b>35.2</b>	<b>107.8</b>	<b>-</b>
<i>Margin %</i>	96.2%	92.5%	89.2%	86.8%	77.20%
<b>EBITDA</b>	<b>1.0</b>	<b>14.7</b>	<b>23.0</b>	<b>76.4</b>	<b>155.79</b>
<i>Margin %</i>	62.2%	66.2%	58.3%	61.5%	71.59%
<b>EBIT</b>	<b>0.6</b>	<b>9.9</b>	<b>15.8</b>	<b>46.7</b>	<b>79.28</b>
<i>Margin %</i>	35.9%	44.6%	40.1%	37.6%	36.43%
<b>Earnings from Cont. Ops.</b>	<b>(0.4)</b>	<b>(2.3)</b>	<b>(5.0)</b>	<b>(371.0)</b>	<b>-</b>
<i>Margin %</i>	(27.0%)	(10.3%)	(12.8%)	(298.9%)	-
<b>Net Income</b>	<b>(0.4)</b>	<b>(2.3)</b>	<b>(5.0)</b>	<b>(252.0)</b>	<b>(37.28)</b>
<i>Margin %</i>	(27.0%)	(10.3%)	(12.8%)	(203.0%)	(17.13%)

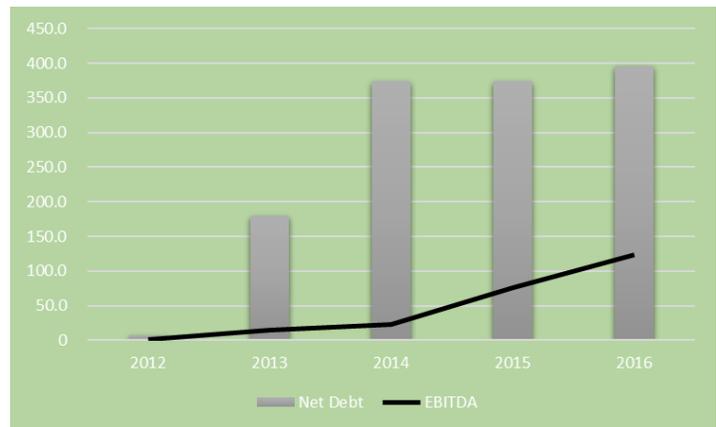
Terraform has typically invested in building new powerplants to grow its business and has put in \$407+ million into the development of these plants since 2013 but has recently engaged in acquisitions that have totaled \$845 million in the past 2 years. Most of their investing activities have been financed by debt which is why their Interest Expense is so large.

## Financial Health

TerraForm is still in the beginning stage of its growth and does not pull in enough from operations to fund its investments which means they are mostly funded by debt. Since 2013, Terraform has issued \$1.8 billion in debt to fund acquisitions and new projects but in 2015, after the company went public, they repaid over \$1 billion of principal. Managing the debt burden is a short-term goal of management which will reduce their default risk and make their marginal cost of borrowing lower.

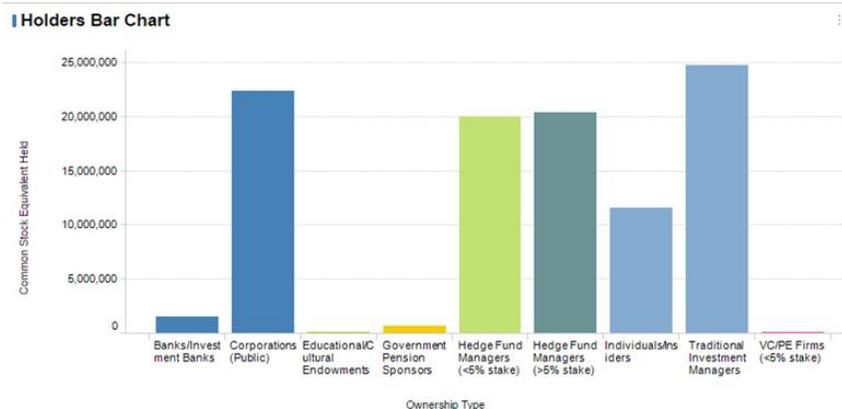
In 2014, all their long-term debt was variable rate which, in this rising interest rate environment will reduce margins. Since going public, TerraForm has renegotiated their obligations to contain fixed payments which will help Terraforms' already high cost of debt. Their largest debt obligation has a 9.8% coupon on principal about \$750 million with many smaller obligations with coupons ranging from 4.5% -12%. In the coming years, it is expected that debt repayments and consolidation will provide consistency in their borrowing costs. Also, all of the debt is due in 2022 and later.

If you look on the balance sheet you will notice that even though TerraForm has a large amount of debt they are also holding onto cash which is why it is relevant to consider their net debt which has been between \$350 - \$400 million for the past 3 years. When you compare their EBITDA to their net debt you will notice that TerraForms operations are increasingly being able to sustain their investing activity and based on current trends EBITDA growth should continue to outpace the growth of net obligations.



Although it is still early, going public and having access to capital markets will act as a tailwind for the company to reach net profitability faster than expected.

## Ownership Summary



\*Chart from Capital IQ

## Valuation and Price Target

Brookfield Asset Management is expected to purchase at \$5.10 per share and the acquisition is likely to go through despite the conflicts with SunEdison. \$5.10 per share represents a 7% premium to where it currently trades but as time goes on and TerraForm's financial position improves the offering price per share could increase further.

Using our proforma to value Terraform is not the best route because of the major changes to its operating and capital structure which is expected to continue and the fact that they are not profitable makes it difficult to measure cash flows. We used a dividend growth model to value TerraForm and calculated a price per share of \$ 15.57 using the following Inputs:

Sustainable Growth		
ROE	11%	*Average Utility ROE
rr	0.72	*Latest Dividend payout
g	0.0792	

Div Growth Model	
Div	0.3
WACC	10%
\$/Share	\$15.57

This valuation is on the high end and will most likely happen if Terraform can execute their long term strategy of owning and operating powerplants and returning profits to shareholders as dividends. Since this valuation is extremely forward looking and is based a lot on speculation I believe a 1 year price target of about \$7.50/share is accurate.



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