

Energy Focus, Inc.

EFOI: Nasdaq

Analyst: Mark Papuzza

Sector: Industrials

BUY

Price Target: \$25.80

Key Statistics as of 11/11/15

Market Price:	\$14.10
Industry:	Electrical Components
Market Cap:	\$179.8 M
52-Week Range:	\$3.95-29.20
Beta:	-.27

Thesis Points:

- The lighting industry is booming, and expected to continue growing
- Partnership with U.S. Navy, and the targeting of new markets
- Financials – Value creation, negative net debt

Company Description:

Energy Focus, Inc. designs, develops, manufactures, markets, and installs energy-efficient lighting systems and solutions in the United States and internationally. The company offers commercial, industrial, government, and military and maritime energy-efficient light-emitting diode (LED) lighting offerings, and also engages in the design and development of lighting retrofit solutions. The company was formerly known as Fiberstars, Inc. and changed its name to Energy Focus, Inc. in May 2007. Energy Focus, Inc. was founded in 1985 and is headquartered in Solon, Ohio.



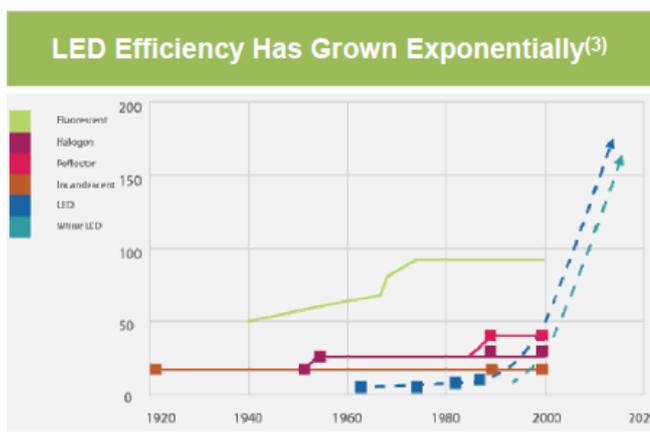
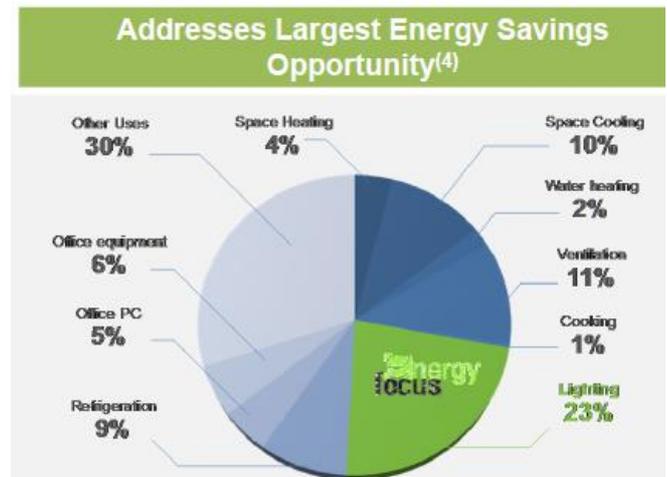
Thesis

Energy Focus, Inc. engages in the designing, development, manufacturing, marketing and installation of energy-efficient lighting systems and solutions. The lighting industry continues to grow, and has a strong outlook for years to come. With the popularity of LED lighting growing at the rate it is, combined with the company's relationship building with big name customers, Energy Focus will continue to create value and increase the price of their stock.

Industry Outlook

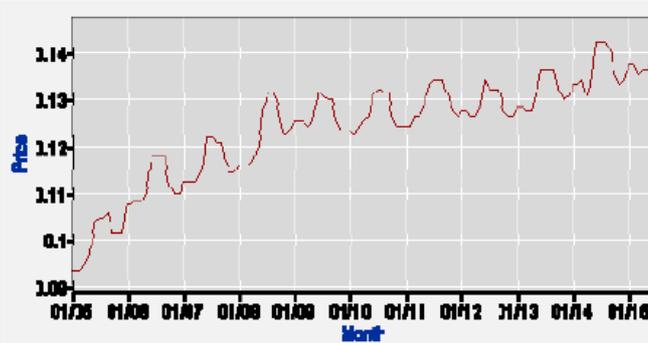
LED stands for light emitting diodes, and they are light bulbs that are much more energy efficient than the common incandescent bulbs. Compared to the traditional incandescent bulbs, LED bulbs last between three to ten times longer thus extending the amount of time between lighting replacement, are much more durable and can sustain tougher conditions as a result of not possessing a filament, develop 90% lesser heat-build up, are mercury-free, and are more cost-effective as a result of consuming less power. It is estimated that LED bulbs consume 50-85% less electricity than traditional bulbs. The LED lighting industry is projected to continue booming at the rate it has in the past few years. The demand for cost effective lighting continues to rise, especially with the initial expense of LED lights decreasing.

In a report completed by the International Energy Agency, they reported that 19% of global electricity use can be credited to lighting. In a study completed by Philips Market Intelligence, the U.S. would save \$53 billion each year in energy costs if there were to be a 40% reduction in electricity lighting. In a report completed by ResearchMoz, they reported that from 2012 to 2019 the LED lighting industry will have a CAGR of 45%, expanding from a \$4.8 billion dollar industry to a \$42 billion dollar industry. Energy Focus is in the midst of this exploding industry, and are looking to capitalize the best they can. The company's strategy is to penetrate existing markets that would benefit greatly from energy efficient lighting, such as schools, hospitals, supermarkets, retail chains, manufacturing facilities. The goal is to bring awareness to these markets of the superior savings the company can offer them in energy costs savings.



LED efficiency continues to increase exponentially and has now exceeded all other sources of light. The payback period for LED lights is now less than three years in the majority of the U.S., Asia, and Europe. Electricity costs have risen every year since 2005, and this trend is expected to continue into the future; thus again highlighting the importance of the cost savings feature of LED lighting.

Record High Electricity Prices Every Year Since 2005⁽¹⁾



Porter's Five Forces

To further assess this industry, let's take a look at Porter's Five Forces of competition, threat of new entrants, threat of substitutes, buyer power, and supplier power.

Competition: High

The competitiveness in the lighting industry is high, as several big players are fighting for a higher market share. It is critical that a company fighting for this has a competitive advantage, and Energy Focus has several. First, they are the only providers of LED fluorescent replacement lamps for the U.S. Navy. Next, the company has a strong business relationship with the U.S. federal government that currently accounts for more than \$53 million in contracts. Thirdly, Energy Focus has over 28 years of experience in the industry, exemplifying their vast knowledge of the industry and the lighting technology. The company implements these advantages to the best of their ability, and will continue to depend on the performance and lower lifecycle cost of their products and services to separate themselves from the pack of competitors.

Threat of Entry: Medium

The LED lighting industry is on track to account for 80% of the lighting industry by 2020. As a result, many businesses would love to jump on this LED wave that is taking over the industry. With improved technology, it is possible for these businesses to make a play to become part of the LED movement. However, with

research and development costs being so high combined with the importance of trusting relationships between the buyers and suppliers, it is still difficult to compete with the already established LED lighting companies.

Threat of Substitutes: Medium

There are many ways people use light to see in the world. The easiest way is using natural light from the sun. Having windows and open blinds will always provide lighting for people (during the day time of course). As for when the sun goes down, people can use candles or fire to light up an area. None of these, however, truly compare to the power of light bulbs and so there is a lack of practical substitutes.

Power of Buyers: Low/medium

The two key segments that must be served in this industry are businesses and homeowners. Both segments have a large demand, resulting in steady consumer purchases. While buyers have a few substitutes they could use, as stated before the substitutes are not too practical and so the demand for light bulbs will always be there.

Power of Suppliers: High

The suppliers of the raw materials in this industry have a decent amount of power. With this industry growing the way it is, the suppliers are constantly producing and constantly needed.

Partnership with Navy, and Targeting of New Markets

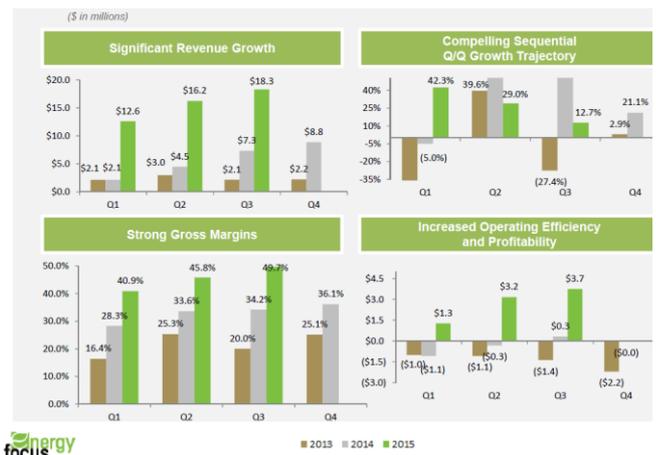
One of Energy Focus' top products is the Intellitube tubular LED (TLED). This patented product supports both "plug and play" and direct-fit operations, and is key in energy savings. Energy Focus is the only provider of TLED lamps to the U.S. Navy. The Intellitube TLEDs can save the Navy up to \$150 million per year in energy costs. Since 2002, the Navy has been under contract for approximately \$53 million with Energy Focus, and have never reported a failure

on the TLEDs. Energy Focus has penetrated 30% of the fleet potential, with 178 Navy ships using their products. As a result of the success the two have had working together, Energy Focus fully expects to keep this relationship going into the future, and looks to bring their products to the rest of the Navy ships. The company has also begun to enter the Military Sealift Command and Allied Foreign Navies markets this year. At the end of June this year, Energy Focus shipped a \$500,000 order of Intellitube LED tubes to the Royal Australian Navy. This sale marked the beginning of the company's strategic expansion plan into the foreign navies market. Energy Focus estimates that among the U.S. Navy, Military Sealift Command and Allied Foreign Navies markets there is a total addressable market of \$550 million.

As Energy Focus continues to expand themselves through these markets, the company has future plans to infiltrate several commercial and industrial markets that have great financial potential. First is the healthcare market, which possesses 3.7 billion square feet in over 151,000 hospital buildings. Energy Focus estimates this as a potential \$2.2 billion dollar market. This year, Energy Focus entered into a multi-million dollar contract with one of the largest healthcare institutions in the country in the state of Ohio. Next is the education market, which possesses 11.6 billion square feet in over 454,000 school buildings. The company estimates this as a potential \$4.6 billion dollar market. This year, Energy Focus announced a partnership with U.S. Green Building Council, which brought opportunities for over 3,000 K-12 schools for lighting retrofits. Third is the industrial and manufacturing market, which possesses 9.8 billion square feet of industrial floor space in 455,000 industrial buildings. The company estimates this as a potential \$5.9 billion dollar industry. Last is the retail floor space market, which possesses 13.2 billion square feet of retail floor space in 772,000 retail buildings. The company estimates this to be a \$7.9 billion dollar industry. If Energy Focus can capitalize on these opportunistic markets as they plan too, and as they have proven they can with the Navy market, the company's future will be brighter than their LED lights.

Financials

The latest quarter for Energy Focus broke many records for the company. The company posted record quarterly net sales of \$18.3 million, which represented a year over year growth of 151%. The company also posted a record quarterly gross margin of 49.8%, a record quarterly operating income of \$3.7 million, and a record quarterly net income of \$4.3 million.



Energy Focus' current ROIC/WACC ratio is 8.40. This extremely high value demonstrates that the company is creating value. Another notable aspect of Energy Focus is their negative net debt, which is currently (\$9,600,000). With more cash on hand than debt, this should look promising to investors.

Conclusion

I am recommending a buy on Energy Focus, Inc. because they are making all of the moves necessary to succeed in a booming industry. LED lights are the future, and Energy Focus will continue to penetrate various markets as a result of their competitive advantages. Coming off of a record performance quarter, the company should keep this momentum going and continue to create value, thus increasing the price of their stock for shareholders.

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Energy Focus, Inc.	EFOI	Analyst Mark Papuzza	Current Price \$14.10	Intrinsic Value \$25.32	Target Value \$25.81	Dividend 0%	1-y Return: 83.05%	BULLISH
General Info		Peers	Market Cap.	Professional	Title	Management		
Sector	Industrials	Cree, Inc.	\$2,613.23	Tu, James	Executive Chairman and Chief Executive Officer	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Electrical Equipment	General Electric Company	\$300,743.66	Hilliard, Eric	President and Chief Operating Officer	\$1,071	\$238,632	\$615,074
Last Guidance	November 4, 2015	(Invalid Identifier)		Miller, Marcia	Chief Financial Officer	\$183,157	\$235,711	\$331,336
Next earnings date	March 26, 2016	Revolution Lighting Technologies	\$154.38	Cheng, Simon	Director of Business Development and Consultant	\$0	\$0	\$0
				Platt, Wayne	National Sales Manager of Fiberstars	\$10,018	\$40,886	\$0
				Schooley, Paul		\$0	\$0	\$0
Market Data		Current Capital Structures		Past Earnings Surprises				
Enterprise value	\$152.18	Total debt/Common Equity (LTM)	0.03	Revenue		EBITDA	Norm. EPS	Standard Error of "Surprise"
Market Capitalization	\$4,443.48	Cost of Borrowing (LTM)	17.22%	Last Quarter	12.93%	0.00%	215.36%	63.74%
Daily volume	0.22	Estimated Cost of new Borrowing	4.84%	Last Quarter-1	53.04%	4614.23%	NM	2277.62%
Shares outstanding	11.63	Altman's Z	NA	Last Quarter-2	74.17%	NM	NM	NM
Diluted shares outstanding	10.12	Estimated Debt Rating	BAA	Last Quarter-3	8.62%	NM	NM	NM
% shares held by institution	26.01%	Current levered Beta	-0.20	Last Quarter-4	0.00%	0.00%	0.00%	0.00%
% shares held by insiders	11.93%	LTM WACC	1.67%	Standard error	14.3%	1538.1%	107.7%	457.81%
Short interest	7.51%			Standard Error of Revenues prediction	14.3%			
Days to cover short interest	0.00			Imputed Standard Error of Op. Cost predict	1538.0%			
52 week high	\$23.20			Imputed Standard Error of Non Op. Cost pr	NM			
52-week low	\$3.35							
5y Beta	0.37							
6-month volatility	134.13%							

Industry Outlook (Porter's Five Forces)
 Bargaining Power of Suppliers (75th Percentile), Bargaining Power of Customers (71th Percentile), Intensity of Existing Rivalry (83th Percentile), Threat of Substitutes (100th Percentile), Threat of New Competition (100th)

Divergence Assumption	General Assumptions		Items' Forecast Assumptions			Other Assumptions	
All base year ratios linearly converge towards the Sub-industry ratios over an explicit period of 10 years	Money market rate (as of today)	0.37%	Base year (LTM)	Divergence period (Sub-indust.)	adjustment per year	Tobin's Q	80%
	Risk-Free rate (long term estimate)	2.93%	Operating Cash/Rev.	0.00%	0.0%	Excess cash reinvestment	Money market rate
	Annual increase (decrease) in interest rates	0.1%	NWV/Rev.	12.72%	16.93%	Other claims on the firm's assets	\$0.00
	Marginal Tax Rate	40.0%	NPPE/Rev.	1.30%	15.40%		
	Country Risk Premium	6.0%	Dpr/NPPE	33.00%	15.31%	Capitalization	
Forecast Year	Revenue Growth Forecast	Revenue (\$)	MOPAT MARGIN	Op. Exp./Rev.	R&D/Rev.	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years	
LTM		\$62.26	8.83%	1.19%	0.48%	100% of all R&D expenses are capitalized and amortized 'straightline' over 10 years	
FY2015	125.8%	\$140.58	87.53%	0.71%	0.70%	E&P expenses are not capitalized	
FY2016	35.7%	\$190.77	SBC/Rev.	0.71%	0.48%	SG&A expenses are not capitalized	
FY2017	36.3%	\$260.02	Rent Exp./Rev.	0.71%	0.48%		
FY2018	18.0%	\$306.83	R&D/Rev.	4.84%	3.92%	Valuation Focus	
FY2019	3.2%	\$335.05	E&D/Rev.	0.00%	0.00%	DCF Valuation	100%
FY2020	5.2%	\$352.48	SG&A/Rev.	27.00%	17.02%	Relative valuation	0%
FY2021	3.6%	\$365.16	RDC	5%	11.37%	Distress Valuation	0%
FY2022	3.1%	\$376.48	EV/Rev.	2.04x	1.18x	Monte Carlo Simulation Assumptions	
FY2023	3.0%	\$387.78	EV/EBITDA	14.40x	8.87x	Revenue Growth deviation	Normal (0%, 1%)
FY2024	3.0%	\$399.41	Debt/Equity	3%	12%	Operating expense deviation	Normal (0%, 1%)
Continuing Period	3.0%	\$411.40	Unlevered beta	-0.20	0.81	Continuing Period growth	Triangular (5.82%, 6%, 6.18%)
			Dividends/REV	0%	2%	Country risk premium	Triangular (2.91%, 3%, 3.09%)
						Intrinsic value a(e)	\$0.03
						1-year target price a(e)	\$0.10

		Valuation		Claims on Assets and Dilution		Shares Outstanding	Price per Share	Monte Carlo Simulation Results
Forecast Year	ROC	WACC	Total Capital	Implied Enterprise Value				
LTM	51.4%	1.7%	\$59.73	\$308.91	\$31.03	11.63	\$25.27	
FY2015	68.7%	2.5%	\$85.08	\$300.89	\$14.21	11.63	\$25.71	
FY2016	22.4%	3.1%	\$111.54	\$317.62	\$14.20	11.63	\$26.57	
FY2017	22.7%	3.8%	\$145.34	\$338.10	\$14.22	11.63	\$27.41	
FY2018	20.1%	4.5%	\$174.66	\$353.22	\$13.83	11.63	\$27.96	
FY2019	18.0%	5.1%	\$199.70	\$365.05	\$12.73	11.63	\$28.47	
FY2020	16.3%	5.8%	\$222.06	\$376.19	\$12.24	11.63	\$29.13	
FY2021	15.0%	6.5%	\$243.13	\$388.58	\$11.57	11.63	\$30.27	
FY2022	14.0%	7.2%	\$263.80	\$403.36	\$10.72	11.63	\$32.26	
FY2023	13.2%	7.9%	\$284.48	\$421.24	\$0.00	11.63	\$36.13	
FY2024	12.6%	8.6%	\$305.38	\$442.75	\$0.00	11.63	\$37.63	
Continuing Period	11.4%	8.8%	\$288.91					

The 3σ(e)-adjusted intrinsic value is \$25.32; the 3σ(e)-adjusted target price is \$25.81; and the analysts' median target price is \$22.5

Sensitivity Analysis
 Revenue growth variations account for 95.3% of total variance
 Risk premium's variations account for 2.5% of total variance
 Operating expenses' variations account for 1.4% of total variance
 Continuing period growth variations account for 0.2% of total variance