Bloom Energy (BE)

Long: Target $23.28 (19% upside)

Maxfield, Brandon, Justin

Table of Contents

01 Business Overview

Problem

Modern energy systems are killing our planet. They are:

- Fossil fuel dependent
- Liable to disruptions and security issues
- Not applicable in enough circumstances

Solution

Bloom Energy, with their innovative fuel cell power generation, solves these problems. Their fuel cells are:

- Independent from each other, eliminating maintenance downtime
- Progressing towards hydrogen-based power generation
- Applicable inside buildings, on land, at sea, and everywhere in between.

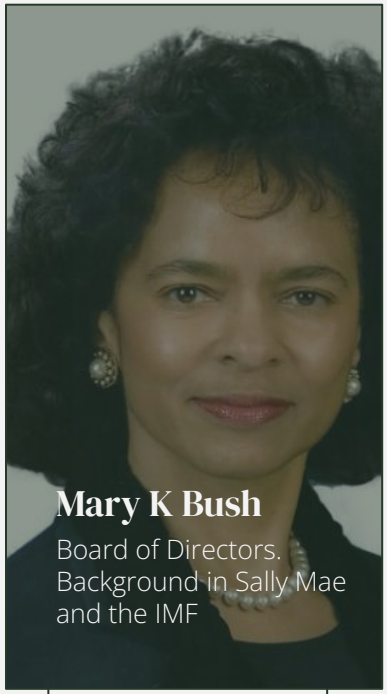
Management

Greg Cameron

VP and CFO.
Background as an Exec
at General Electric

KR Sridhar

Founder and CEO.
Background at NASA



Mary K Bush

Board of Directors.
Background in Sally Mae
and the IMF

Nuts and Bolts

Assets

Energy is an asset-heavy industry

1.725M

Liabilities

Taking on debt during expansion

1.518M

Stock Price

Current price as of 4/28

$19.50

Market Analysis and Competition

02

Competition Analysis

	Bloom	Traditional	Renewables	Nuclear
Sustainable	Yes	—	Yes	Somewhat
Dominant	—	Yes	Somewhat	—
Economical	Approaching	Yes	Somewhat	Somewhat

Different Types of Fuel Cells

PEMFC
Proton Exchange Membrane Fuel Cells are the most commonly used fuel cells, occupying approx. 67% of the market.

PAFC
Phosphoric Acid Fuel Cells are the next most popular, at approx. 11% of the market.

SOFC
The type of fuel cells that Bloom makes are Solid Oxide Fuel Cells, taking up 10% of the market.

MCFC
Molten Carbonate fuel cells take 9% of the market.

Why Solid Oxide?

Lower Emissions

The output of the process is steam (which can be used to generate even more power) and uses non-rare earth metals (unlike other types of fuel cells). Any excess CO2 can be reused.

Greater Efficiency

Higher operating temperature allows for the reuse of excess heat in endothermic processes.

Fuel Flexibility

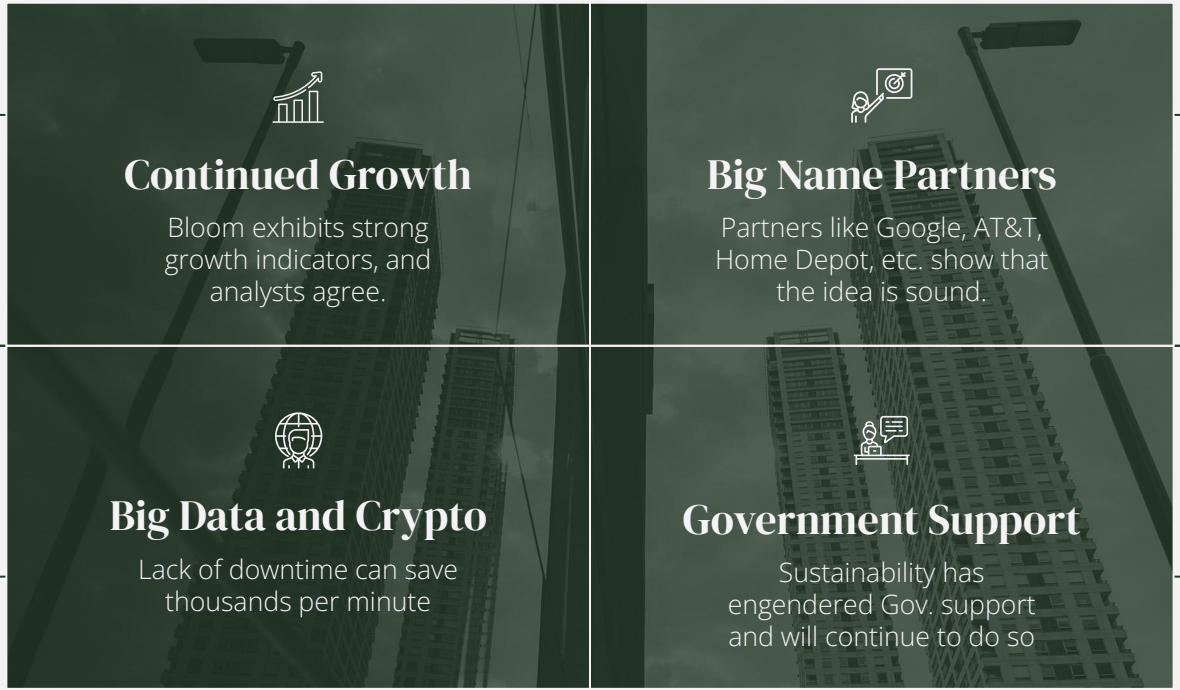
Can operate with heavy hydrocarbons like gasoline and biofuels, but also gassified solid fuels like coal and biomass.

Long-Term Stability

By using non-rare earth metals like platinum for catalysts, there is significantly reduced risk of catalyst poisoning from CO2.

03 Investment Thesis

Overview



Continued Growth

Bloom exhibits strong growth indicators, and analysts agree.

Big Name Partners

Partners like Google, AT&T, Home Depot, etc. show that the idea is sound.

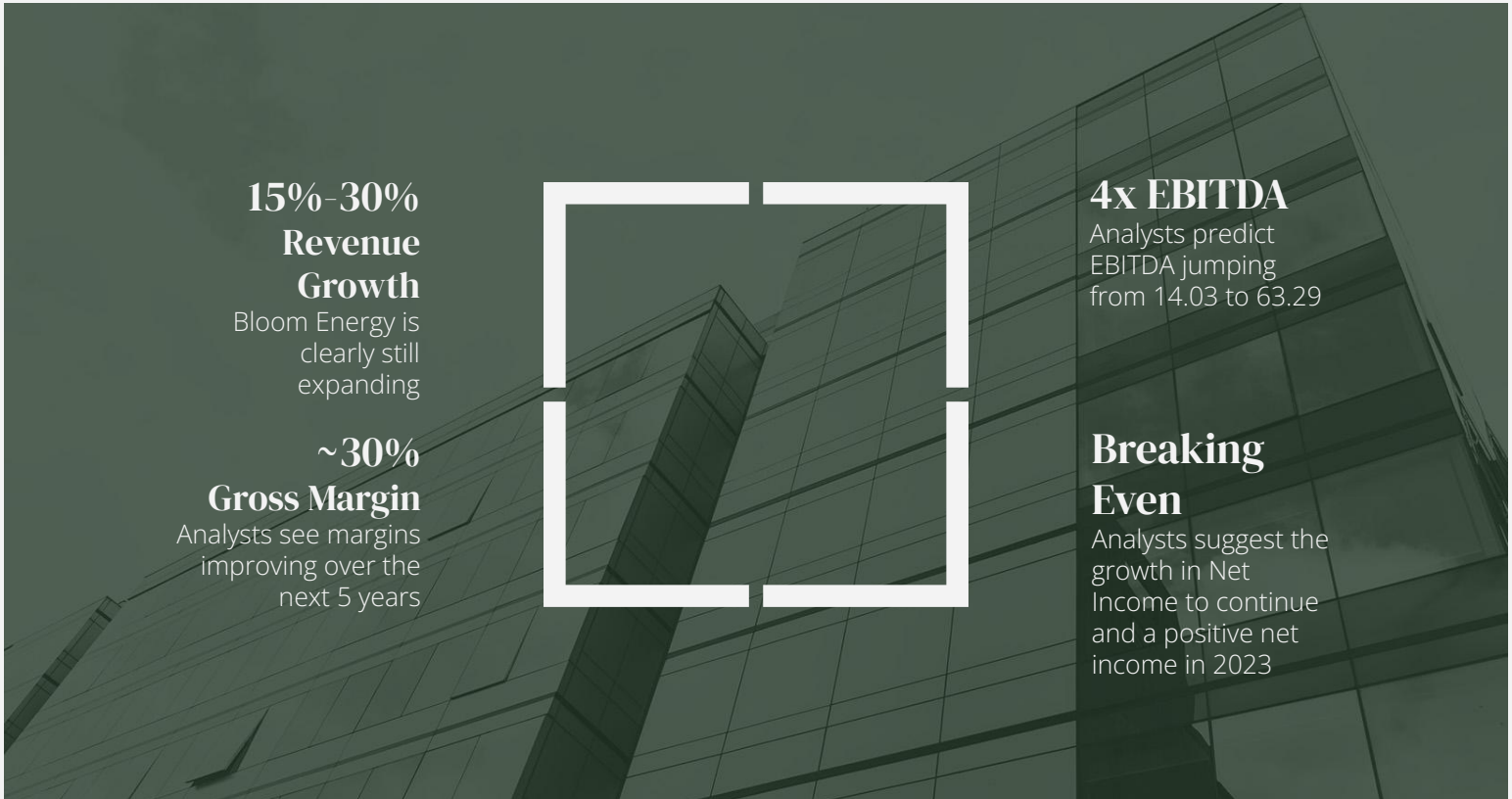
Big Data and Crypto

Lack of downtime can save thousands per minute

Government Support

Sustainability has engendered Gov. support and will continue to do so

Predicted Growth



15%-30% Revenue Growth
Bloom Energy is clearly still expanding

~30% Gross Margin
Analysts see margins improving over the next 5 years

4x EBITDA
Analysts predict EBITDA jumping from 14.03 to 63.29

Breaking Even
Analysts suggest the growth in Net Income to continue and a positive net income in 2023

Major Partners

Drivers for Growth

Visibility and Market Share

As Fuel Cell energy becomes more popular and takes up an increasing part of the market, Bloom will grow.

Sustainability Growth

Increased emphasis on sustainability will allow Bloom to grow.

Pricing Competition

As Bloom continues to bring its pricing down (or as other energy prices rise), it will only become more competitive.

Risks and Pitfalls

04

Risks

Bloom has never generated a profit, despite at least $1.7 billion of invested capital, some of which was raised on the back of false statements.

1. **Management:** has mislead investors and partners with incorrect financial figures that were later retracted and revised

2. **Technology:** although solid oxide fuel cell technology has rapidly improved over the years and offers obvious upside, without continued expenses on research and development, Bloom is a long way from profitability

3. **Supply Chains:** the installation, servicing, and equipment required to maintain and create fuel cells relies heavily on delivery and transportation lines that were (and continue to be) disrupted by COVID-19.

05 Models

Bloom Energy Valuation: Discounted Cash Flow

x Unlevered Free Cash Flows

	LTM	Actual	Forecasts				
Fiscal year ended	4/20/2022	12/31/2021	12/31/22	12/31/23	12/31/24	12/31/25	12/31/26
Revenue		**972.18**	**1,169**	**1,434**	**1,791**	**2,295**	**3,020**
% growth		**22.4%**	**20.3%**	**22.6%**	**24.9%**	**28.1%**	**31.6%**
Cost of Revenue		**774.60**	**889.57**	**1,047.65**	**1,247.41**	**1,513.17**	**1,871.80**
% growth		**23.3%**	**14.8%**	**17.8%**	**19.1%**	**21.3%**	**23.7%**
Gross Profit		**197.59**	**279.81**	**385.99**	**543.66**	**781.77**	**1,148.47**
% Gross Margins		**20.32%**	**23.93%**	**26.92%**	**30.35%**	**34.06%**	**38.03%**
Operating Expenses							
SG&A		208.69	250.43	287.99	331.19	380.87	438.00
% growth		28.03%	20.00%	15.00%	15.00%	15.00%	15.00%
R&D		103.40	124.08	148.90	178.68	205.48	236.30
% growth		25.21%	20.00%	20.00%	20.00%	15.00%	15.00%
EBITDA		**(61.07)**	**(40)**	**5**	**91**	**253**	**533**
% margin		-6.28%	-3%	0%	5%	11%	18%
EBIT		**(114.50)**	**(94.69)**	**(50.89)**	**33.80**	**195.42**	**474.17**
% margin		-11.78%	-8%	-4%	2%	9%	16%
Tax on EBIT		(1.05)	0	0	7	39	95
Tax rate		0	0.0%	0.0%	20.0%	20.0%	20.0%
NOPAT (aka EBIAT)		**(113.45)**	**(95)**	**(51)**	**27**	**156**	**379**
Depreciation & amortization		53.45	54.52	55.61	56.72	57.86	59.01
% growth		2.24%	2%	2%	2%	2%	2%
Changes in net working capital		-18.85	0	0	0	0	0
Capital expenditures		-49.81	-50.81	-51.82	-52.86	-53.92	-54.99
% growth		31.39%	2.00%	2.00%	2.00%	2.00%	2.00%
Unlevered free cash flows (UFCF)			**(91)**	**(47)**	**31**	**160**	**383**

Terminal value - growth in perpetuity approach

WACC	8.00%
Long term growth rate	2.50%
2026 FCF x (1+g)	393
Terminal value in 2026	7,144
Present value of terminal value	4,806
Present value of stage 1 cash flows	299
Total enterprise value (TEV)	**5,105**
Terminal value as % of TEV	*94.1%*
Stage 1 cash flows as % of TEV	*5.9%*
Implied TV exit EBITDA multiple	*13.4x*

Terminal value - EBITDA multiple approach

WACC	8.8%
Terminal year EBITDA	533
EBITDA multiple	12.0x
Terminal value in 2026	6,398
Present value of terminal value	4,304
Present value of stage 1 cash flows	299
Enterprise value (stage 1 + 2)	**4,603**

x **Valuation**

	Perpetuity	EBITDA
Enterprise value	5,105	4,603
Net debt	*981*	*981*
Equity value	4,124	3,622
Shares outstanding	177	177
Equity value per share	**$23.28**	**$20.45**
Current stock price	**$19.45**	
Upside / (Downside)	**19.71%**	

Bloom Energy

Adjusted EBITDA Margin Analysis (Base Case)

($ in MMs, Except Per Share Data)

General Information									Financial Stats. and Ratios				
Company	Ticker	FYE	Industry (2)	Current Share Price	52-wk. High	% of 52-wk. High	Equity Value (3)	Enterprise Value	LTM Revenue	LTM SG&A Margin	LTM Gross Margin	LTM EBITDA Margin (4)	EV / Revenue
Bloom Energy	BE		Solid Fuel Oxide	$19.45	$37.01	52.55%	$3,454.90	$4,435.87	$972	21.47%	20.33%	-6.28%	4.56272
Tier I: Large-Cap													
NextEra Energy	NEE		Renewables (Solar, Wind)	$73.64	$93.73	78.57%	$144,334.40	$223,610.0(	$17,070.00	23.16%	50.31%	42.97%	13.10
Enphase Energy	ENPH		Renewables (Solar)	$167.04	$282.46	59.14%	$29,671.32	$26,430.00	$1,380.00	16.54%	40.17%	18.08%	19.15
Plug Power	PLUG		Hydrogen Fuel Cells	$22.28	$46.50	47.91%	$22,042.00	$12,329.08	$502.43	35.81%	-19.76%	-72.23%	24.54
Mean									$33,041.00	15.60%	31.20%	-3.73%	18.93
Median									$28,655.00	14.20%	30.60%	18.08%	19.15
Tier II: Mid-Cap													
Hitachi Zosen	TYO: 7004		SOFC Producer	$5.50	$7.87	69.89%	$926.97	$1,220.00	$3,184.63	14.05%	17.82%	6.41%	0.38
Fuel Cell Energy	FCEL		Fuel Cell Producer	$4.23	$12.62	33.52%	$1,551.10	$1,730.00	$86.50	14.50%	-10.34%	-80.18%	20.00
Ballard Power Syste	BLPD		Fuel Cell Producer	$9.20	$23.13	39.78%	$2,739.85	$2,000.00	$104.50	36.27%	13.40%	-75.60%	19.14
Nel ASA	NLLSF		Hydrogen Fuel and El	$1.74	$3.14	55.41%	$2,714.40	$2,700.00	$85.46	57.69%	26.74%	-65.54%	31.59
Mean									1,125.21	21.61%	6.96%	-49.79%	13.17
Median									104.50	14.50%	13.40%	-75.60%	19.14

Revenue	$972
EV /Revenue	*5.3*
Enterprise Value	5,123.5
Net Debt	981
Equity Value	4,143
Implied share price	**$23.39**

Revenue	$972
EV /Revenue	*19.2*
Enterprise Value	18,666.2
Net Debt	981
Equity Value	17,685
Implied share price	**$99.85**

Revenue	$972
EV /Revenue	*5.3*
Enterprise Value	5,123.5
Net Debt	981
Equity Value	4,143
Implied share price	**$23.39**

06

Conclusion

Thanks

Does anyone have any questions?