

# Q1: Quarterly Industry Update

AS OF March 31, 2019



## Energy Storage

### INDUSTRY SUMMARY

**COGENT VALUATION** identified **Energy Storage** publicly traded companies, IPOs, and recent M&A transactions within the Energy Storage industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since March 31, 2018, the median 52-week share price return of the Energy Storage industry was -1.8%. Between March 31, 2017 and March 31, 2019, the median EV/EBITDA multiple increased from 10.6 to 12.4. Furthermore, the median price-to-earnings multiple decreased from 21.4 to 20.5 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 5.7% and 6.3%, respectively.

### Public Company Key Statistics

Median 52-Week  
Return

-1.8%

Median 3-Year CAGR  
Return

-2.4%

Median EV/Revenue  
Multiple

1.2x

Median EV/EBITDA  
Multiple

12.4x

Median Price/Earnings  
Multiple

20.5x

Median EV/Gross CF  
Multiple

17.7x

## Comparable Public Company Market Price Returns as of March 31, 2019

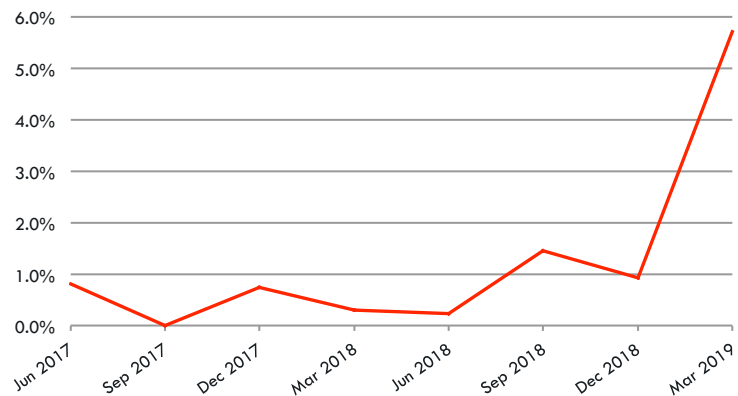
	2019	3 Month	1 Year	2 Year	3 Year	2018	2017	2016
<b>CBAK Energy Technology, Inc.</b>	-8.5%	-8.5%	0.4%	-40.5%	-34.3%	4.8%	-49.9%	51.9%
<b>EnerSys</b>	-0.4%	-0.4%	-12.1%	12.0%	2.0%	-10.8%	39.6%	-9.4%
<b>Highpower International, Inc.</b>	1.4%	1.4%	-5.1%	N/A	N/A	57.4%	-21.7%	-39.6%
<b>Ultralife Corporation</b>	52.7%	52.7%	83.5%	27.1%	-7.0%	32.3%	-23.4%	106.4%
<b>Universal Power Group, Inc.</b>	1.9%	1.9%	-1.8%	N/A	N/A	-11.5%	-17.0%	-26.5%
<b>Median of Industry Public Companies</b>	1.4%	1.4%	-1.8%	0.7%	-7.3%	4.8%	-21.7%	-9.4%

Multiple year periods are calculated as the average annual return.

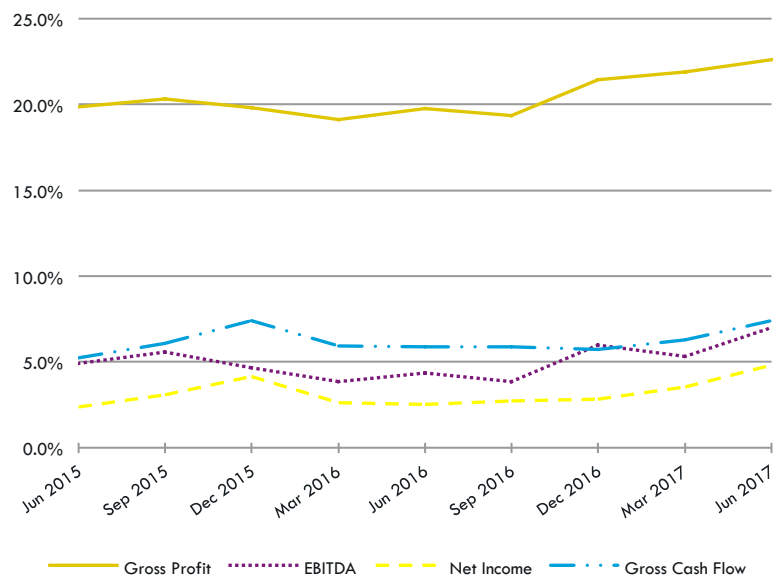
■ Highest Return
 ■ Lowest Return
 ■ Median Return

## Industry Revenue Growth and Profit Margins for the Past Two Years

Median Quarterly Revenue Growth of All Energy Storage Companies



Median Gross Profit, EBITDA, Net Income, and Gross Cash Flow Margins



## Public Company Median Multiples by Quarter

	3/31/19	12/31/18	9/30/18	6/30/18	3/31/18	12/31/17	9/30/17	6/30/17
<b>EV/Revenues Multiple</b>	1.2x	1.0x	1.1x	1.2x	0.9x	0.8x	0.7x	0.9x
<b>EV/EBITDA Multiple</b>	12.4x	9.4x	10.0x	11.2x	10.6x	10.3x	9.8x	12.5x
<b>Price/Earnings Multiple</b>	20.5x	13.4x	18.3x	19.6x	21.4x	21.6x	22.7x	17.8x
<b>EV/Gross Cash Flows Multiple</b>	17.7x	15.0x	13.4x	14.9x	14.9x	15.3x	15.0x	15.5x

■ Highest Multiple   
 ■ Lowest Multiple   
 ■ Median Multiple

## Industry Initial Public Offerings – Energy Storage (dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
3/26/19	Shanghai Putailai New Energy Technology Co.,	\$2.49	0.5	\$1.7	\$51.9	\$15.7	\$318.9	\$6.4	\$2.9	\$7.0
3/18/19	Varta AG	\$20.60	15.0	\$285.0	\$1,410.5	\$1,057.1	\$279.7	\$142.0	(\$26.1)	\$182.0
10/10/18	Voltabox AG	\$28.34	3.0	\$21.0	\$32.0	\$11.7	\$35.4	\$3.3	\$1.4	\$3.4
10/5/18	Goldstar Power Limited	\$0.38	12.0	\$4.6	\$8.1	\$4.2	\$8.5	(\$3.5)	(\$4.0)	(\$3.3)
10/18/17	Shin Heung Energy & Electronics Co., Ltd.	\$14.14	7.0	\$84.0	\$6.7	\$4.1	\$94.1	N/A	N/A	N/A
10/10/17	mPLUS Corp.	\$15.90	8.0	\$136.0	\$23.3	\$0.0	\$43.3	(\$15.4)	(\$18.8)	(\$14.7)
10/5/17	Highpower International, Inc.	\$3.25	5.0	\$70.0	\$78.3	\$39.5	\$79.6	\$15.7	\$5.3	\$18.0
	<b>Median of all IPOs</b>	<b>nm</b>	<b>nm</b>	<b>\$70.0</b>	<b>\$32.0</b>	<b>\$11.7</b>	<b>\$79.6</b>	<b>\$4.8</b>	<b>(\$1.3)</b>	<b>\$5.2</b>

## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought
2/21/19	<b>Kokam Co., Ltd.</b>	SolarEdge Technologies, Inc.	\$111.4	100%
1/3/19	<b>Fuelcon AG</b>	HORIBA Automotive Test Systems GmbH	\$18.1	100%
11/22/18	<b>ACCURATE Smart Battery Solutions GmbH</b>	Voltabox AG	\$5.9	100%
9/1/18	<b>Liyang Yuequan Electric Energy Co.</b>	Zhejiang Youchuang Venture Capital Co., Ltd.	\$84.6	51%
2/21/18	<b>Pure Vanadium Corp.</b>	Stina Resources Ltd. (nka: CellCube Energy Storage Systems Inc.)	\$4.4	100%
1/3/18	<b>IABÖ Global Holding</b>	J2L	\$45.1	100%
9/20/18	<b>Jinhua An Kao Power</b>	Zhejiang Kandi Vehicles Co.	\$21.8	100%
9/19/18	<b>Wuhan Fanso Technology</b>	EVE Energy Co., Ltd	\$167.0	100%
9/12/18	<b>Tohoku Murata Manufacturing</b>	Murata Manufacturing	\$19.5	100%
11/22/17	<b>Go Power! Electric Inc.</b>	Valterra Products, LLC	\$46.1	45%
9/1/17	<b>Magna Steyr Battery</b>	Samsung SDI Co. Ltd.	\$120.0	100%

■ USA
 ■ International

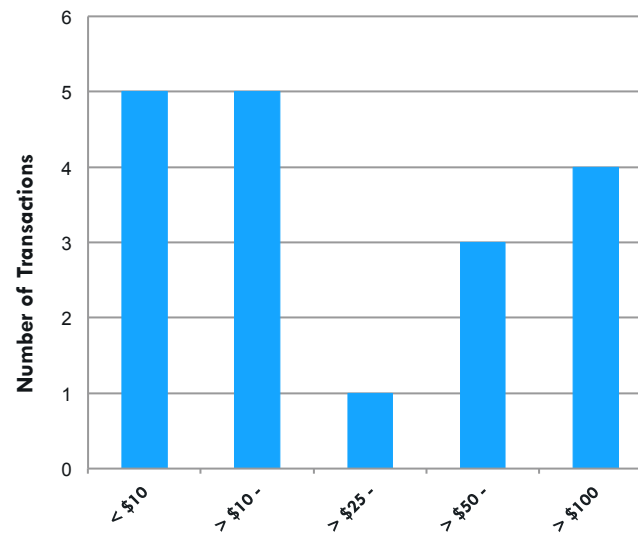
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## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

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Transaction Date	Target	Acquirer	Transaction Size	% Bought
4/8/16	SK Continental E-motion	SK Innovation Co., Ltd.	\$14.9	100%
6/30/15	Ener-tek International, Inc.	OM Group Inc.	\$24.0	100%
5/5/15	A123 Energy Solutions	NEC Corporation	\$100.0	100%
12/30/14	Shenzhen Eyang Energy	N/A	\$1.7	100%
11/24/14	Quallion LLC	EnerSys	\$30.0	100%
9/30/13	Eltek Electric Vehicles	Valeo SA	\$20.3	100%
8/23/13	Millennium Power Solutions	Blue Earth Inc.	\$15.2	100%
Median of the M&A Transaction Targets			\$14.9	100%

## Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of March 31, 2019





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**Definitions of Financial Terms Used in this Quarterly Industry Update:**

**Enterprise Value (EV):** Market Value of Equity + Market Value of Debt —Cash

**Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA):** referred to as operating profit or operating earnings.

**Gross Cash Flows:** Net Income + Depreciation and Amortization Expense

**Latest Twelve Months (LTM):** Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

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