

An EnergyTech Investor Publication

Bringing relevant news and data on the Clean Transportation Market to the Investment Community

Volume 1 / Issue 2

UQM OVERVIEW

UQM Technologies is a developer and manufacturer of power-dense, high-efficiency electric motors, generators, power electronic controllers and fuel cell compressors for the commercial truck, bus, automotive, marine, military and industrial markets.

A major emphasis for UQM is developing propulsion systems for electric, hybrid electric, plug-in hybrid electric and fuel cell electric vehicles. UQM is TS 16949 and ISO 14001 certified and located in Longmont, Colorado.



UQM TECHNOLOGIES LATEST NEWS

- ❖ **December 3, 2015** - UQM Technologies Receives Follow-On Order from Air Comm Corp. for Aerospace Air Conditioning Electric Motor and Controller Systems for 2016 Delivery.
- ❖ **November 30, 2015** - UQM Technologies to Ship Initial Systems to ITL in China.
- ❖ **November 10, 2015** – UQM Technologies Reports Second Quarter Fiscal Year 2016 Revenues Up 55% Over Last Year.
- ❖ **November 5, 2015** - UQM Technologies Receives New Orders for Proterra's Catalyst Bus Program for Calendar Year 2016 Delivery.

UQM POWERPHASE SYSTEM- CONTROLLER TECHNOLOGY

Attributes of UQM Technologies microprocessor-based digital power electronic controllers include high power operation (up to 650 amps and 700 volts), four-quadrant control (forward/reverse and motoring/generating), reduced switching losses relative to conventional technology, adaptive switch timing control and controller area network (CAN) capability. As a result, UQM PowerPhase® controllers have high operating efficiencies and high power density, generally having smaller external dimensions and weight for a given power output, improving packaging.



UQM Technologies Inc

UNITED STATES / Industrials / Electronic & Electrical Equipment

Exchange: NYSE MKT LLC

Ticker: UQM



General Info (Currency: USD)

Price (Previous Close):	0.58	Beta (Rel to SP500):	0.73
Price - 52 Week High:	1.65	Dividend Yield (Indicated):	0.0%
Price - % Below High:	-64.9%	Shares Outstanding (MIL):	48
Price - 52 Week Low:	0.47	Float Shares (MIL):	42
Price - % Above Low:	23.3%	Float % of O/S:	87.7%
Median Price Target:	1.50	Market Cap (MIL):	28
Implied Profit:	158.8%	Enterprise Value (MIL):	21

Consensus Recommendation

Buy

of Analysts: 1
Upgrades Last 4 Weeks: 0
Downgrades Last 4 Weeks: 0

Estimates (Currency: USD)

Period	Sales (MIL)			Est. 30 30 Days Ago	EBITDA (MIL)			Est. 30 30 Days Ago	EPS			Est. 30 30 Days Ago
	Mean Est.	High Est.	Low Est.		Mean Est.	High Est.	Low Est.		Mean Est.	High Est.	Low Est.	
FY0 (Actual)	4				-6				-0.15			
FY1 (Current Year)	6	6	6	5	-6	-6	-6	-5	-0.17	-0.17	-0.17	-0.11
% above/below mean		0.0%	0.0%	-11.0%		0.0%	0.0%	-20.6%		0.0%	0.0%	-35.3%
FY2 (Next Year)	9	9	9	8	-4	-4	-4	-3	-0.11	-0.11	-0.11	-0.08
% above/below mean		0.0%	0.0%	-11.2%		0.0%	0.0%	-15.2%		0.0%	0.0%	-27.3%

Valuation Ratios

Period	P/E	P/SALES	EV/REVS	EV/EBITDA
FY0 (Actual)	-3.9x	7.0x	5.4x	-3.7x
FY1 (Current Year)	-3.4x	4.6x	3.9x	-4.1x
FY2 (Next Year)	-5.3x	3.0x	2.6x	-6.4x

FY0 Per Share Metrics (Currency: USD)

Cash&STInv:	0.16	Sales:	0.10
Total Debt:	0.00	Cash Flow:	-0.11
WorkingCap:	0.39	Free CF:	-0.12
Book Value:	0.56	Dividends:	0.00

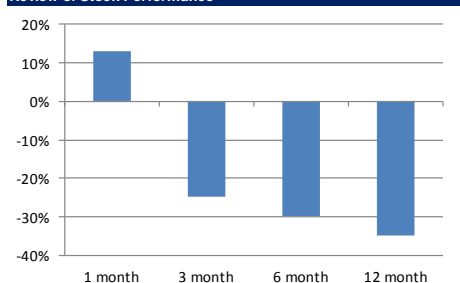
FY0 Employee Data

# of Emp:	56
Emp Grth:	N/A
RevEmp:	71,710
5 yr Avg:	N/A

Abbreviated Financials (Currency: USD)

Income Statement (MIL)	FY0	FY-1	Balance Sheet (MIL)	FY0	FY-1	Cash Flow Statement (MIL)	FY0	FY-1
Sales	4	7	Cash & ST Investments	7	10.310141	Net Income	-6	-2.773244
Gross Income	1	3	Fixed Assets	7	7.567773	Funds From Operations	-4	-1.748242
EBITDA	-5	-2	Total Assets	25	29.835133	Cash From Operations	-3	-0.622732
EBIT	-6	-3	Current Liabilities	2	1.878038	Capital Expenditures	-1	-0.377224
Pretax Income	-6	-3	LT Debt	0	0	Cash From Investments	0	1.348248
Net Income	-6	-3	Total Liabilities	2	2.060138	Cash Dividends Paid	0	-0
Common Shares	40	40	Total Shareholders Equity	22	27.774995	Cash From Financing	0	4.993697

Review of Stock Performance



Profitability

	FY0	5 Year Avg
Gross Margin	28%	-3%
R/D % Sales	113%	37%
SGA % Sales	246%	120%
EBITDA Margin	-123%	-65%
Operating Margin	-218%	-123%
Pretax Margin	-149%	-82%
Net Margin	-149%	-82%
CF/Sales	-84%	-66%
Tax Rate	N/A	N/A
ROA	-24%	-18%
ROE	-27%	-20%

FY0 Sales By Region

Region	Sales
United States (Country)	3
Foreign Countries	1

Price Chart (Currency: USD)



Source: Thomson Reuters, EnergyTech Investor



"Each new bus takes only 10-15 minutes to complete recharging the battery. Charging each bus takes place 2-3 times per day, during driver breaks, with several route loops between each charge..."

"In summary, electric buses are taking off in China where the government-supported mass transit boom is fueling the growth of China's electric bus and LFP manufacturing industries."

ELECTRIC BUS MARKET WILL GROW AN ESTIMATED VOLUME SALES OF 33,854 UNITS BY 2020: DIGITAL JOURNAL

The global electric bus market is mainly dominated by hybrid buses. However, the market for the pure electric bus is growing at a fast pace owing to increasing public and government interest in emission-free transportation. China dominated the global electric bus market mainly due to its large population and the clean transportation drive initiated by the government.

[CLICK THE LINK ABOVE TO READ THE FULL ARTICLE](#)

FAST-CHARGING BEIJING STATION RECHARGES 30 BUSES IN 15 MINUTES

Covering 285,000 square feet, the Beijing charging complex represents the latest collaboration for Microvast (a China-based manufacturer that builds EV batteries) and utility company China State Grid. In 2012, the two companies worked together on what they termed the "world's first commercial, ultrafast, electric vehicle charging station." Also located in Beijing, this first station was tasked with charging more than 30 plug-in and electric buses that serviced the Chongqing International Airport.

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CHINA PRODUCED 72,378 NEW ENERGY VEHICLES IN NOVEMBER

In October this year, China produced 50,700 new energy vehicles, which is eight times more than the number registered in the same month last year. The production volume of electric passenger vehicles totaled 21,700 units, up by 850% year on year. The plug-in hybrid passenger vehicles reached 7,028 units, up by 200% year on year. The electric commercial vehicles amounted to 19,600 units, up by 400% year on year. The plug-in hybrid commercial vehicles stood at 2,389 units, up by 200% year on year. In the meantime, 46,100 units of them, accounting for 91% of all the new energy vehicles produced this month, fall into the categories of the first five batches of domestically manufactured new energy vehicles which are entitled to enjoy New Energy Vehicle Purchase Tax Exemption.

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“Electric cars have also developed fast in China. By October this year, 333,000 electric vehicles had already been on the roads of 39 cities across China.”

“Let us strive to establish and spread green consumption and production systems around the world”

TAKING THE ELECTRIC AVENUE

Electric buses are not sci-fi anymore, with fleets of them operating in a number of locations in the country. London was one of the first places to embrace them and will soon have close to 70 on the road. Locations such as Nottingham have followed. It's not just buses though, it is all part of a wider interest and development in electric vehicles, with recent figures showing sales of plug-in cars having increased by 71.6% over the past two years. It is an exciting time for anyone interested in low carbon fleets.

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ELECTRIC BUSES TO BE INTRODUCED SOON IN INDIA

State transport minister Vijay Rupani, New Delhi said that the government of Gujarat would introduce a fleet of six electric buses for public transport between Gandhinagar and Ahmedabad as part of its efforts to ensure pollution free green environment. He welcomed the central government's green initiative which aims at promotion of electric and hybrid vehicles to address issues of vehicular emissions and national fuel security. In his speech, Rupani said he would invite the automobile industry to manufacture electric vehicles in Gujarat as there was a pressing need to enhance pollution-free public transport system in the country. The international community is actively promoting a new governance system to cope with climate change - a challenge to humankind as a whole.

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10 CITIES ANNOUNCE SUSTAINABLE PROCUREMENT PLANS AT PARIS CLIMATE TALKS

10 cities that participate in a sustainable procurement network have been outlining how their policies encourage sustainable production and consumption, at the network's first summit at the COP21 UN global climate change talks in Paris. For example, Auckland is replacing more than 40,000 streetlights with LEDs, saving NZ\$36 million (£15.9 million) over 20 years, and Cape Town's city authority is introducing sustainability criteria in its tenders for city fleet vehicles. In addition, Warsaw is focusing on sustainable procurement of transport, with 300 trams purchased in the last two year and plans for 100 electric buses over the next four years.

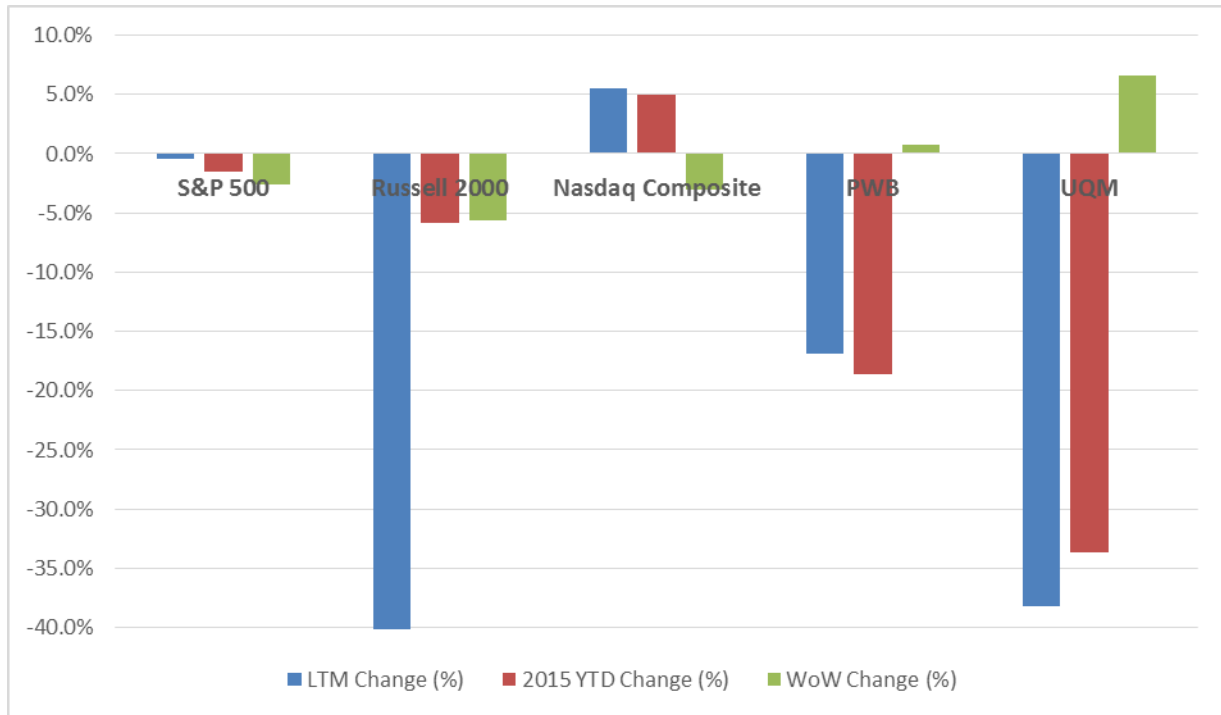
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CLEAN TRANSPORTATION- COMP TABLE

Company	Ticker	Price	Market Cap (\$M)	Debt (\$M)	Cash (\$M)	Preferred Shares	Enterprise Value (\$M)	TTM EBITDA (\$M)	EV/EBITDA	Dividend Yield (%)	FY14 Revenue	FY15 Revenue	FY16 Revenue	EV /Rev FY14	EV /Rev FYE	EV /Rev FY15	EV /Rev FY16	FY14 EPS	FY15 EPS	FY16 EPS	P/E FY14	P/E FY15	P/E FY16
Sector: Clean Transportation																							
Advanced EABAT		\$0.05	3.8	0	74.04469	\$0.0	-\$70	\$47	-1.5x	N/A	N/A	N/A	N/A	N.A.	Dec-11	N.A.	N.A.	N/A	N/A	N/A	N.A.	N.A.	N.A.
Alt Energy	AFC-LN	\$26.00	75.4	0	3.88983	\$0.0	\$71	-\$2	-39.5x	N/A	\$3.6	\$1.7	\$3.6	19.9x	Oct-13	42.1x	19.9x	(\$1.80)	(\$0.90)	(\$1.80)	N.M.	N.M.	N.M.
Altair Nano	ALTI	\$0.05	0.6	11.539	3.293	\$0.0	\$9	-\$13	-0.7x	N/A	N/A	N/A	N/A	N.A.	Dec-13	N.A.	N.A.	N/A	N/A	N/A	N.A.	N.A.	N.A.
Bak	CBAK	\$3.05	38.8	24.86124	11.55416	\$0.0	\$52	-\$2	-30.6x	N/A	N/A	N/A	N/A	N.A.	Sep-11	N.A.	N.A.	N/A	N/A	N/A	N.A.	N.A.	N.A.
Clean Dies	CDTI	\$1.20	21.3	11.114	2.99	\$0.0	\$29	-\$10	-3.0x	N/A	\$43.8	\$40.3	\$41.3	0.7x	Dec-15	0.7x	0.7x	(\$0.70)	(\$0.68)	(\$0.41)	N.M.	N.M.	N.M.
Clean Enrg	CLNE	\$3.85	348.7	574.216	165.982	\$0.0	\$784	\$5	171.0x	N/A	\$406.5	\$358.3	\$400.8	1.9x	Dec-15	2.2x	2.0x	(\$1.07)	(\$1.13)	(\$0.88)	N.M.	N.M.	N.M.
Electrovaya	EFL-T	\$0.74	59.9	7.267	3.192	\$0.0	\$48	-\$5	-10.6x	N/A	\$15.0	\$42.9	\$46.2	3.2x	N/A	1.1x	1.0x	\$0.01	\$1.20	N/A	74.0x	0.6x	N.A.
Energys	ENS	\$56.47	2507.1	667.675	320.565	\$0.0	\$2,865	\$331	8.7x	1.0%	\$2,466.9	\$2,509.9	\$2,315.0	1.2x	Mar-16	1.1x	1.2x	\$3.89	\$4.31	\$3.97	14.5x	13.1x	14.2x
Fuel System	FSYS	\$4.22	76.4	0.097	56.198	\$0.0	\$20	-\$2	-10.9x	N/A	\$328.7	\$271.6	\$291.5	0.1x	Dec-15	0.1x	0.1x	(\$0.52)	(\$1.15)	(\$0.11)	N.M.	N.M.	N.M.
Highpower	HPJ	\$3.32	50.1	51.9585	7.91019	\$0.0	\$95	\$7	14.3x	N/A	\$152.0	\$160.4	\$181.3	0.6x	Dec-15	0.6x	0.5x	\$0.24	\$0.32	\$0.52	13.8x	10.4x	6.4x
Itm Power	ITMLN	\$22.87	40.7	0	6.576	\$0.0	\$34	-\$5	-6.7x	N/A	\$7.0	\$6.2	\$8.0	4.9x	Apr-16	5.5x	4.3x	(\$1.70)	(\$2.50)	(\$2.30)	N.M.	N.M.	N.M.
Maxwell	TerMXWL	\$6.67	212.1	0.106	24.813	\$0.0	\$187	-\$1	-307.6x	N/A	\$184.2	\$164.9	\$161.9	1.0x	Dec-15	1.1x	1.2x	(\$0.15)	(\$0.67)	(\$0.06)	N.M.	N.M.	N.M.
Quantum F	QTWW	\$0.85	23.8	14.26379	2.40919	\$0.0	\$36	-\$13	-2.7x	N/A	\$31.4	\$39.0	\$43.1	1.1x	Dec-15	0.9x	0.8x	(\$0.58)	(\$0.58)	(\$0.31)	N.M.	N.M.	N.M.
Saft Groupe	SAFT-FR	\$27.50	757.7	237.9	190.5	\$0.0	\$808	\$111	7.3x	2.7%	\$676.7	\$751.6	\$791.6	1.2x	Dec-15	1.1x	1.0x	\$1.79	\$1.81	\$2.10	15.4x	15.2x	13.1x
Tesla	TSLA	\$227.07	29735.1	2679.384	1426.036	\$0.0	\$30,988	-\$184	-168.1x	N/A	\$3,696.6	\$5,368.6	\$8,787.0	8.4x	Dec-15	5.8x	3.5x	\$0.57	(\$1.26)	\$1.81	N.M.	N.M.	N.M.
T3 Motion	TTM	\$0.05	1.0	5.04048	0.03523	\$0.0	\$6	-\$4	-1.4x	N/A	N/A	N/A	N/A	N.A.	Dec-13	N.A.	N.A.	N/A	N/A	N/A	N.A.	N.A.	N.A.
Ultralife	ULBI	\$6.74	102.6	0	14.585	\$0.0	\$88	\$6	13.7x	N/A	N/A	N/A	N/A	N.A.	Dec-15	N.A.	N.A.	\$0.06	\$0.20	N/A	N.M.	33.7x	N.A.
Uqm Tech	UQM	\$0.58	28.1	0	4.01849	\$0.0	\$24	-\$7	-3.4x	N/A	\$12.5	\$4.6	\$6.2	1.9x	Mar-16	5.2x	3.9x	(\$0.14)	(\$0.14)	(\$0.17)	N.M.	N.M.	N.M.
Westport	WPRT	\$1.90	166.9	66.194	42.057	\$0.0	\$147	-\$103	-1.4x	N/A	\$133.2	\$109.7	\$163.0	1.1x	Dec-15	1.3x	0.9x	(\$1.76)	(\$1.44)	(\$0.87)	N.M.	N.M.	N.M.
Average														3.4x	4.9x	2.9x				29.4x	14.6x	11.2x	

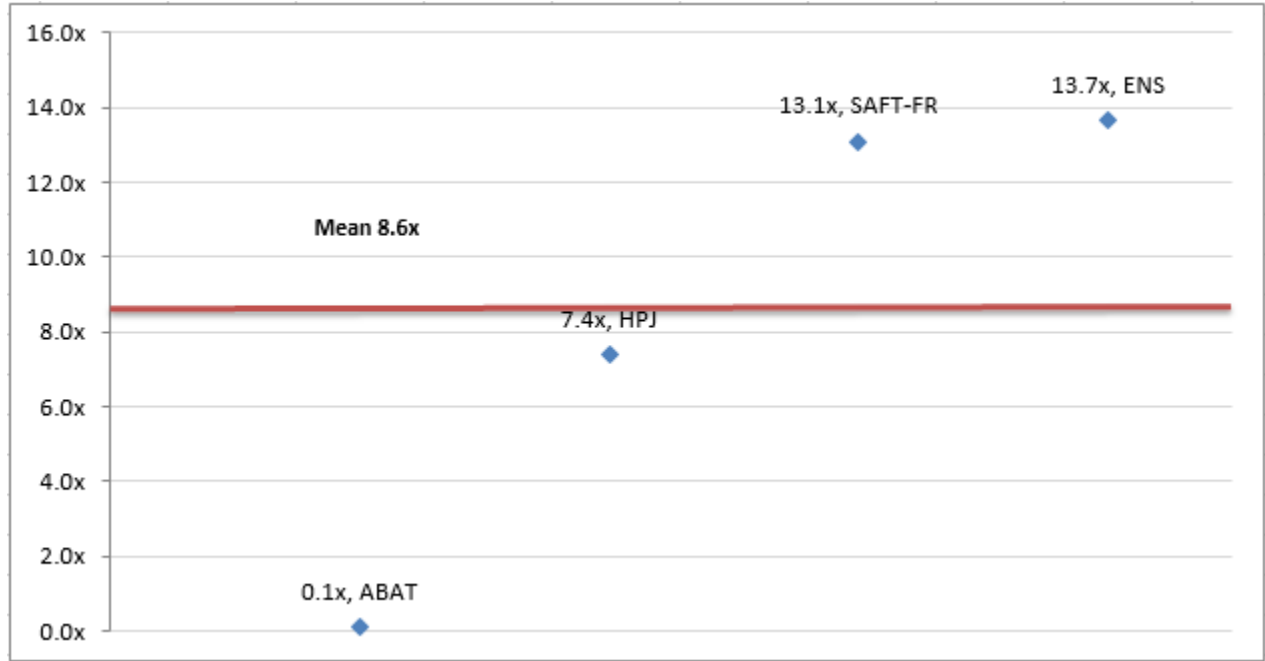
Source: Thomson Reuters, The EnergyTech Investor

CLEAN TRANSPORTATION- RELATIVE PERFORMANCE



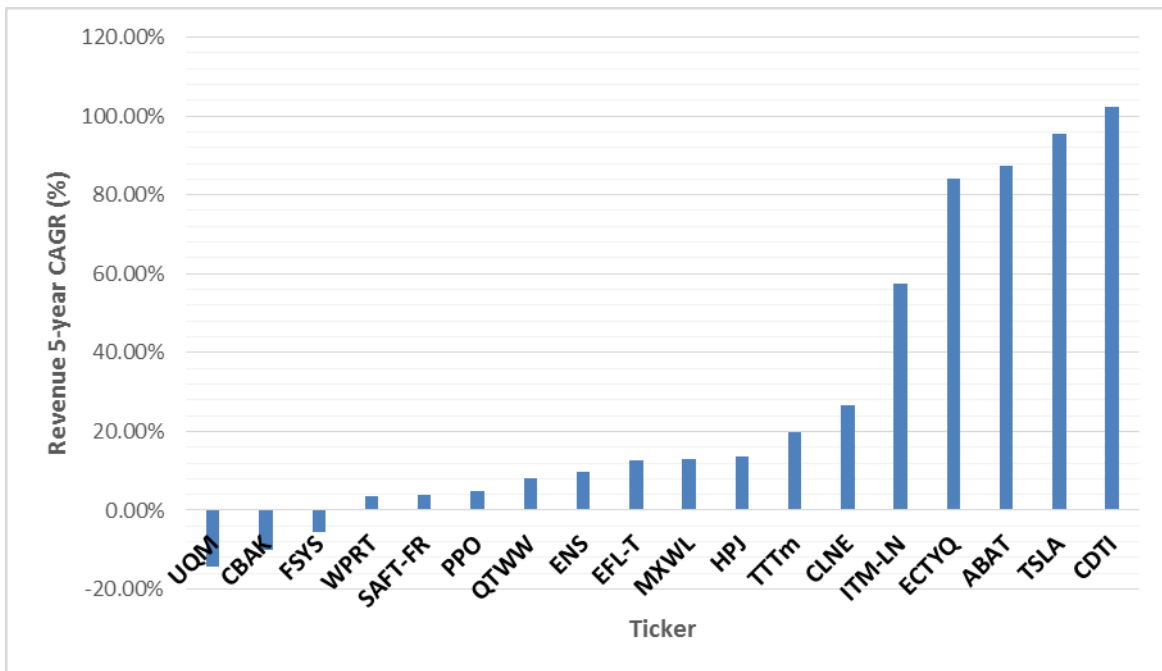
Source: Thomson Reuters, The EnergyTech Investor

CLEAN TRANSPORTATION INDEX- P/E BASED ON NTM CONSENSUS ESTIMATES



Source: Thomson Reuters, The EnergyTech Investor

CLEAN TRANSPORTATION- TOTAL REVENUE 5-YEAR CAGR %



Source: Thomson Reuters, The EnergyTech Investor



UQM TECHNOLOGIES TO SHIP INITIAL SYSTEMS TO ITL IN CHINA

UQM Technologies Inc. announced on November 30th, that the initial PowerPhase Pro® 135 systems for ITL Efficiency Corporation ("ITL") are expected to be shipped by December 31, 2015, and will be used in the vehicle control unit integration and the test and certification programs which are necessary before product launch can occur. These systems are part of the recently announced 10-year supply agreement program between UQM and ITL.

"We are pleased that ITL has formally kicked off the ordering process and these initial electric propulsion systems will be utilized to begin the test and certification vehicles for the 6 – 8 meter buses in China," said Joe Mitchell, Chief Operating Officer and Interim President and CEO. "We have stated that the testing and certification processes are anticipated to take place in calendar 2016 leading to a production launch in 2017, and so far everything appears to be on schedule."

About ITL

ITL is an independent wholly-owned subsidiary of Eastlake New Energy and responsible for the entire electric drive supply to Eastlake and its subsidiaries. Its goal is to become a major e-drive system supplier to the entire China market. Beyond the UQM supplied propulsion systems, ITL is responsible for the supply of transmissions, vehicle control units (VCU's), DC/DC converters and other related components along with vehicle system integration, application and certification support.

Read more about ITL by clicking the link:

https://uqm.com/wp-content/uploads/2015/11/UQM-Fact-Sheet-on-Eastlake-New-Energy_FINAL_November-20151.pdf



SHAWN SEVERSON CEO AND EDITOR-IN-CHIEF

Mr. Severson founded EnergyTech Investor in 2015 after seeing a significant communication and information gap developing between small and micro-cap companies and the financial community. Mr. Severson has over 20 years of experience as a senior research analyst covering the technology and cleantech industries and is currently a Managing Director at the Blueshirt Group where he is the head of the Energy, Environmental and Industrial Technologies practice. The Blueshirt Group is a leading Investor Relations consulting firm focused on growth companies. Previously, Mr. Severson was at JMP Securities where he was a Senior Equity Research Analyst and Managing Director of the firm's Energy, Environmental & Industrial Technologies research team. Prior to JMP, he held senior positions at ThinkEquity, Robert W. Baird (London) and Raymond James. He began his career as an Equity Research Associate at Kemper Securities. He was frequently ranked as a top research analyst including one of the Wall Street Journal's "Best on the Street" stock pickers and multiple awards as Starmine's top three stock pickers.



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