

Energy Conversion Devices Inc.
ENER - \$53.00 – NasdaqNM
New Recommendation

Recommendation: Sell Short

Reasons For Short Sale Recommendation

- Alternative Energy Plays-Solar, computer memory and hybrid auto batteries.
- Stock up almost 150% in less than one year.
- Currently unprofitable.
- P/E of 883 times 2007 EPS of \$0.06, which we highly doubt.
- ENER was supposed to be profitable in 2006 (June). Not any more.
- Negative Cash Flow.
- Stock price up on competitors supply shortages.
- Exclusive distribution agreement with Solar Integrated Technologies (SIT.LN), which is in precarious financial condition.
- Range of applications for technology is not as good as traditional Solar (polysilicon) technology.
- Popular in Germany and States that offer tax credits, but winding down.
- Lots of licensing deals and joint venture “announcements”.
- Retail investor hype.

Financials

52 – Week Low 6-8-2005	\$16.07	Book Value/Shr (mrq)	\$5.30
52 – Week high 1-24-2006	\$57.84	Diluted Earnings/Shr (ttm)	-\$1.03
Daily Volume Avg.	1,673,440	Diluted Earnings/Shr mrq)	-\$0.21
52 – Week Change	+148%	Sales/Shr (ttm)	\$2.93
Market Capitalization	\$1.63B	Cash/Shr (mrq)	\$2.23
Shares Outstanding	30.88M	Price/Book (mrq)	10.0
Float	30.04M	Price/Earnings (ttm)	NA
Profit Margin (mrq)	-35.20%	Price/Sales (ttm)	18.46
Operating Margin (ttm)	-37.65%	Revenue (ttm)	\$86.24M
Return on Assets (ttm)	-12.55%	EBITDA (ttm)	-\$24.70M
Return on Equity (ttm)	-25.31%	Debt/Equity (mrq)	0
Operating Cash Flow (ttm)	-\$34.43M	Shares Short 4-8-05	NA
Leveraged Free Cash Flow (ttm)	-\$53.09	% of Float Short	NA
Total Cash (mrq)	\$68.93M	Short Ratio	NA

(ttm) = Trailing 12 months, (mrq) = Most recent quarter, M = Millions, B = Billions, m = Thousands

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Business Description (10K)

Energy Conversion Devices, Inc. (ECD) is a technology, product development and manufacturing company engaged in the invention, engineering, development and commercialization of new materials, products and production technology in the fields of alternative energy technology and information technology. Based upon the fundamental and pioneering inventions of Stanford R. Ovshinsky, principal inventor, we have established a leadership role in the development of proprietary materials, products and production technology based on our atomically engineered amorphous and disordered materials using chemical and structural disorder to provide multiple degrees of freedom that result in our ability to make many new materials.

We have developed materials that permit us to design and commercialize products such as thin-film solar cell (photovoltaic) products, nickel metal hydride (NiMH) batteries, and phase-change memory devices. These products have unique chemical, electrical, mechanical and optical properties and superior performance characteristics. Our proprietary materials, products and technologies are referred to as Ovonic.

We have established a multi-disciplinary business, scientific, technical and manufacturing organization to commercialize products based on our technologies, and have enabling proprietary technologies in the important fields of energy generation and storage and information technology.

We manufacture and sell our proprietary products through our subsidiaries and joint venture companies and through licensing arrangements with major companies throughout the world. In addition, in support of these activities, we are engaged in research and development, production of our proprietary materials and products, as well as in designing and building production machinery. Our extensive patent portfolio includes numerous basic and fundamental patents applicable to each of our business segments. We invent not only materials, but also develop low-cost production technologies and high-performance products. Our patents, therefore, cover not only materials, but also the production technology and products we develop.

Our corporate organization and the activities we conduct directly and through our subsidiaries and joint ventures are divided into the following three segments summarized below (see Item 8 regarding revenues and expenses of United Solar Ovonic Corp., United Solar Ovonic LLC, Ovonic Cognitive Computer, Inc., Ovonic Hydrogen Systems LLC, Ovonic Fuel Cell Company LLC and Ovonic Battery Company, Inc. which are included in our consolidated financial statements).

United Solar Ovonic Segment

Ownership as of September 6, 2005

United Solar Ovonic Corp.
United Solar Ovonic LLC

ECD - 100%
ECD - 60%
United Solar Ovonic Corp. - 40%

ECD Segment

Ovonic Unified Memory (TM)

Ovonyx, Inc.

ECD - 41.7%
Tyler Lowrey; Intel Capital;

private investors - 58.3%

Ovonic Cognitive Computer (TM)

Ovonic Cognitive Computer, Inc.

ECD - 95%
Ovonyx - 5%

Hydrogen Technology

Ovonic Hydrogen Systems LLC

ECD - 100%

Fuel Cell Technology

Ovonic Fuel Cell Company LLC

ECD - 100%

Ovonic Battery Segment

Energy Storage and Related Technologies

Ovonic Battery Company, Inc.

ECD - 91.4%
Honda Motor Company, Ltd. - 3.2%
Sanoh Industrial Co., Ltd. - 3.2%
Sanyo Electric Co. Ltd. - 2.2%

Cobasys LLC (formerly Texaco Ovonic
Battery Systems LLC)

Ovonic Battery Company, Inc. - 50%
Chevron Technology Ventures LLC - 50%

Rare Earth Ovonic Metal Hydride
Joint Venture Co. Ltd.

CD & Ovonic Battery Company, Inc. - 19%

Rare Earth Ovonic High Power NiMH
Battery Joint Venture Co. Ltd.

Inner Mongolia Baotou Steel Rare-Earth High Tech
Holding Co. Ltd. and other investors - 81%

Rare Earth Ovonic NiMH Battery
Electrode Joint Venture Co. Ltd.

MAJOR BUSINESSES

Solar: (76.2% of 2005 revenue adjusted for one time licensing fee received)

United Solar Ovonic subsidiary manufactures our continuous web, **thin-film multilayer photovoltaic products**. Photovoltaic (PV) is the direct conversion of sunlight into electricity and a source of clean energy. United Solar Ovonic's products are lightweight, rugged and flexible, unique characteristics, which differentiate them from other solar products, and include a complete line of power panels and a line of roofing products for commercial and residential applications. The multilayer PV cells are manufactured using a proprietary continuous roll-to-roll process. Alliances with roofing manufacturers and contractors have expanded United Solar Ovonic's market for building-integrated PV (BIPV) roofing products.

Battery: (11.7% of 2005 adjusted revenue)

Cobasys, an integrated energy storage solutions joint venture with Chevron Technology Ventures (Chevron), is bringing advanced **NiMH batteries** into widespread commercial production for transportation, telecommunication, uninterruptible power supply (UPS), military, homeland security, stationary power and other prismatic battery applications. Cobasys offers complete advanced NiMH

battery pack system solutions for hybrid electric vehicles (HEVs), heavy-duty vehicles (HDVs) and vehicles with 36/42-volt electrical systems. It also is developing advanced stationary battery systems for telecommunications, UPS and distributed generation applications.

Memory: (21.9% of 2005 adjusted revenue)

Another joint venture, Ovonyx, is commercializing its proprietary electrical phase-change **semiconductor memory technology**, Ovonic Unified Memory (OUM), through a series of joint development programs with industrial partners. OUM offers significantly faster write and erase speeds and higher cycling endurance than conventional FLASH and DRAM semiconductor memory.

Alternative Energy Plays

ENER's stock has more than tripled from June of 2005. This is mostly due to the increase in oil prices. Investors are looking for alternative energy plays to profit from. Unfortunately, these investors are ignoring the history and the far from ready, real everyday technologies of these types of companies. Last time we checked, we have not seen a car run on solar power or by battery for any practical length of time. Every time president Bush mentions alternative energy these stocks go up in price. However, this has happened many times in the past. Major magazines like Forbes and Business week among others in the 1980's and 1990's wrote up ENER favorably. In the end the companies do not deliver on their promises and continue to spill red ink and the stock prices collapse.

Currently Unprofitable

An example of an unfulfilled promise by ENER is that the company had said last year that it would be profitable in its fiscal year that ends in June of 2006. Now it says it is "on track" for profitability but will not give a date. Chairman Robert Stempel said on the November 2005 conference call "We're very much dedicated to return to profitability." That's a relief! ENER is estimated to have EPS in 2006 of (\$0.70). That is far away from profitability and most likely will be unprofitable again in 2007 in our estimation.

Even if ENER were to make a small profit next year of \$0.06, the stock would be trading at 883 times earnings. ENER would be expensive if it earned a dollar a share, much less six cents. Needless to say it will be a long time, if ever, that ENER can earn a dollar a share.

Negative Cash Flow

Of course ENER has huge negative cash flow both on an operating basis and on a leveraged free cash flow basis. Operating cash flow was negative \$34.43 million over the trailing twelve months and leveraged free cash flow was a negative \$53.09 million over the trailing twelve months.

EBITDA was a negative \$24.7 million and net income available to common shareholders was negative \$30.1 million over the trailing twelve months.

Bull Story

One of the main reasons for the run-up in ENER stock price over the past year has been due to the shortage of silicon, the key material in competitor's solar panels. Most solar panels use polysilicon and are more popular and more efficient. ENER's solar panel's use "thin film" photovoltaic technology. Thin film can generate electricity even in the shade but is less efficient because you have to use about twice as much as regular polysilicon solar panels to generate approximately the same amount of energy. ENER claims it is operating its solar division at full capacity and that it "sold out". While that is true, quarterly sales are still below 6 megawatts. The current silicon shortage is expected to last less than one year, so ENER has a short amount of time to capture a lot of sales. Even with the shortage of silicon, ENER has other competitors like Mitsubishi, Honda, Sharp and others.

We believe that once the silicon shortage is over, companies will go back to using polysilicon solar panels because they are more efficient and because they have many more adaptations. Our sources in the industry tell us that ENER's solar panels have many constraints that make them a poor choice for a lot of solar applications. For instance, the panel's only work on metal roofs and that the roofs need to be completely clear. There can be no air-conditioning units, water tanks, antennas, duct work, etc... In other words, things that would normally be found on a commercial metal roof make it a poor choice. The vast majority of houses do not have metal roofs but have roofs made out of asphalt shingles. Hence, ENER's solar panels are a poor choice for most homes and a lot of commercial applications.

Solar Integrated Technologies (SIT.LN)

SIT has an exclusive contract with ENER to sell thin film. SIT is in perilous financial condition. A bankruptcy would not be out of the question. If SIT were to experience a disruption in its' business, this would not be good for ENER as they would have to scramble for a new distributor. Solar panels are approximately 76 percent of ENER's revenue. This is by far the most important business segment.

Semiconductor Memory

Semiconductor memory is about 22 percent of ENER's revenue. ENER just recently issued a press release announcing the signing of a licensing deal with Samsung for a still developmental "phase-change OUM" flash memory product from Ovonyx. Samsung and other companies, including Intel, would have to pay royalties to ENER to use its memory products. While this sounds good, **most experts in the field think that ENER's memory technology will not generate any meaningful revenue for at least 3 to 5 years.** Samsung is hoping to have samples of OUM technology by the end of the year.

Battery

ENER has a joint venture with Chevron Texaco, called Cobasys. They have a NiMH (Nickel-metal hybrid) battery that can be used in gas-electric hybrid automobiles. The battery will be used in the new Saturn VUE hybrid. ENER will earn a royalty on these batteries. There has been a lot of hype recently over hybrid cars because of the high cost of gasoline. If you do the math, hybrid cars make no sense from a financial standpoint. While they get marginally better gas mileage and consume less gas, they cost thousands more than a conventional car. For instance, the Toyota Prius costs \$9000 more than the non-hybrid model and gets 22 miles per gallon versus 20 for the gas only model. If you divide the \$9000 by the slightly less amount of gas you save over a ten-year period you come out worse off than just buying the normal car.

In any event we are not talking about a lot of money here despite the hype. Last quarter battery royalties to ENER were just \$700,000. This is because ENER only earns a royalty on hybrid cars made in the U. S. The top selling Toyota Prius is not made in the U.S. **Royalties will end in 2014, but many experts predict that lithium-ion batteries will replace NiMH batteries before then anyway.** Batteries were 12 percent of revenue last year. The joint venture with Cobasys is not currently profitable and the company has not given a date that it expects it will be profitable.

Speaking of joint ventures and announcements, ENER has made well over a dozen of them and almost all of them never went anywhere. Companies ENER has been partnered with include: General Motors, IT &T, BAE Systems, Intel, STMicroelectronics and many others. These types of companies are press release companies. They always issue press releases and announcements and joint ventures with companies to induce gullible retail investors to buy the stock. Eventually they get burned and a new crop of investors is needed.

Tax Credits

ENER's products have been popular in Germany and some states in the U.S. that offer tax credits for purchasing solar panels. Germany is starting to cut back and so are some of the states. New Jersey has been cutting back and many installers refuse to install their products because of difficulty in obtaining the tax rebates and credits.

Insider Sales

ENER completed the sale of 7,000,000 shares of stock in early march 2006. Directors and officers of ENER sold 383,072 shares at \$46.55 for about \$18 million. We advise selling as well. Our price target for ENER is \$30 within twelve months. It has the potential to go much lower than that. We don't know where it will trade in the short run as all these alternative energy plays have been on a run, but we believe the fundamentals will win out at some time in the near future. At over 18 times sales and a forward P/E of 883 we think the good news is already priced in!
Sell.

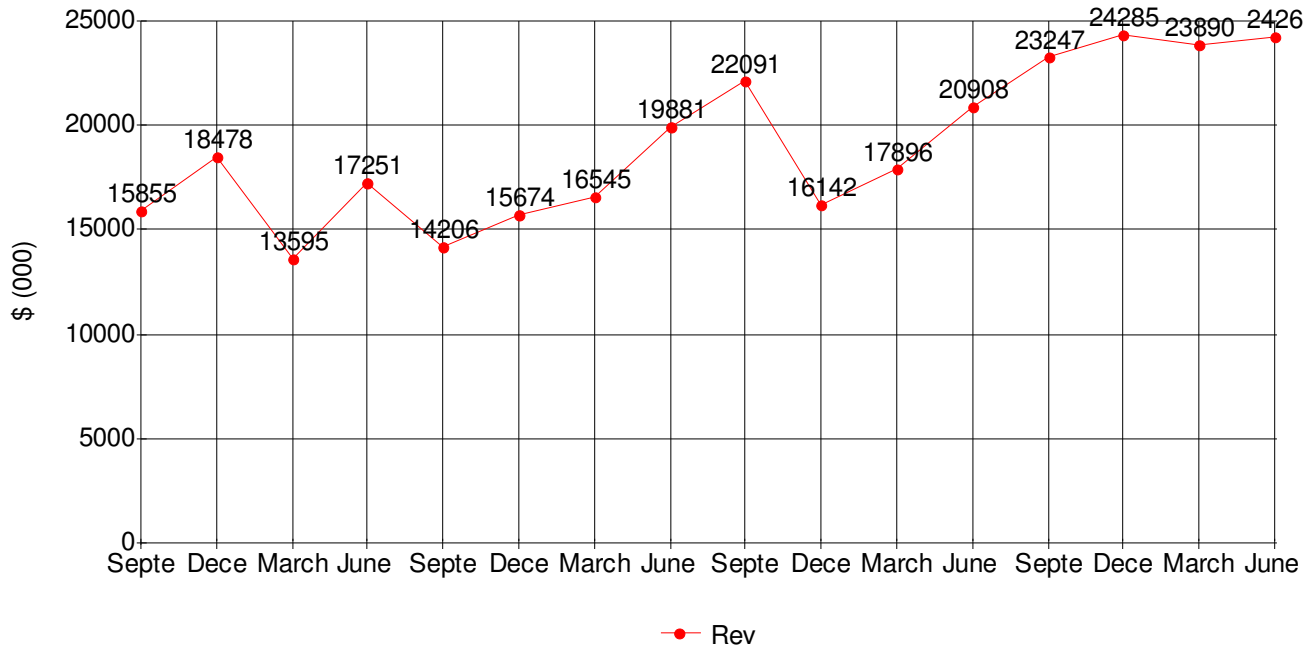
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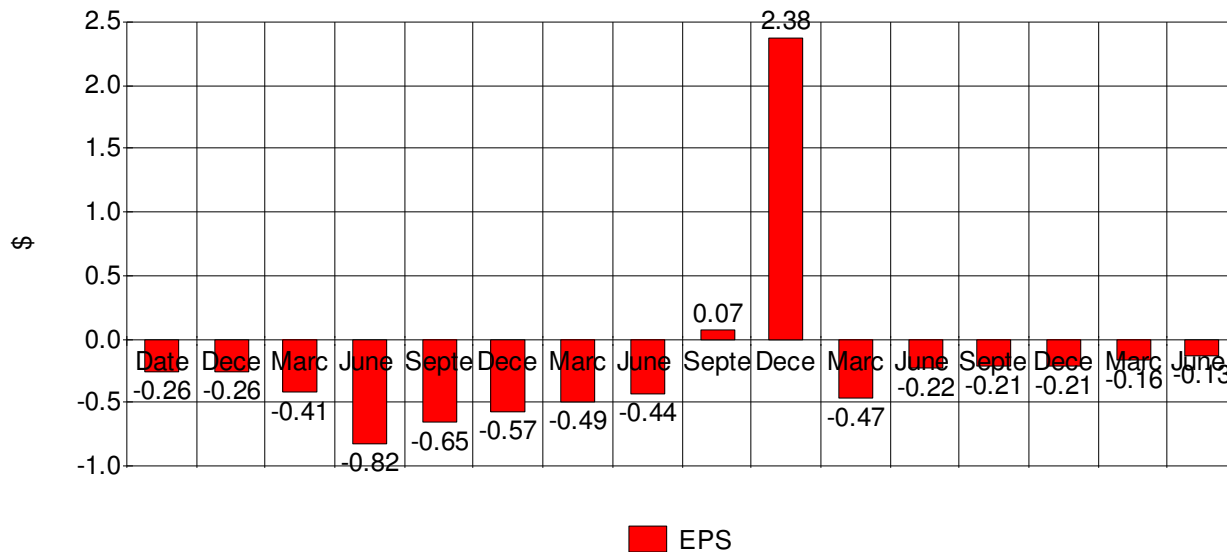
ENER Revenue

September 2002 To June 2006 Est.



ENER Earnings Per Share

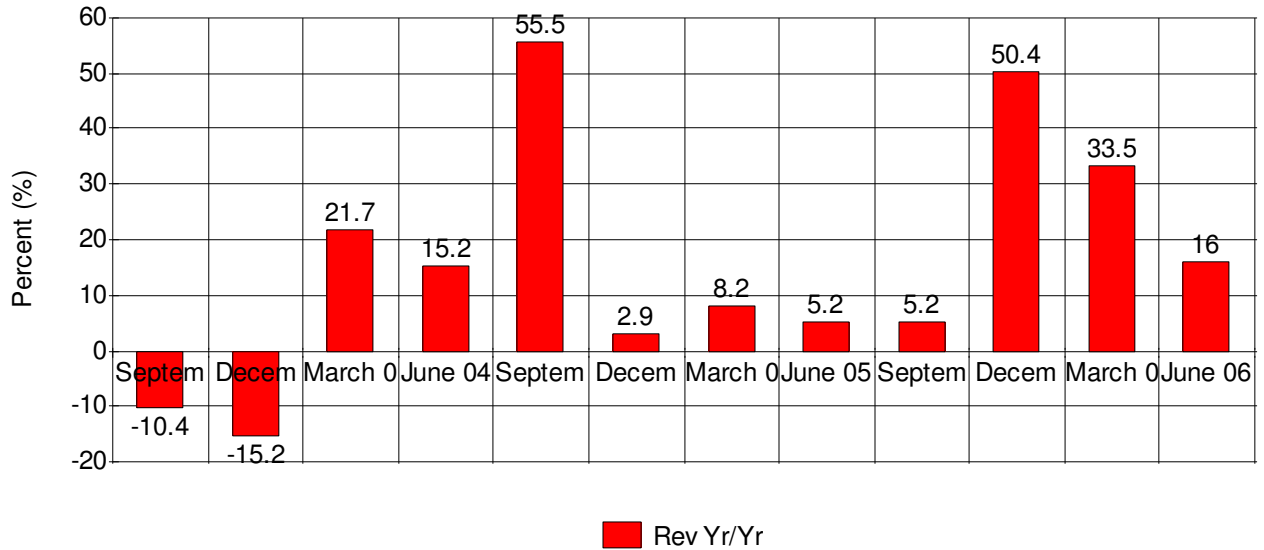
September 2002 To June 2006 Est.





ENER Revenue Growth %

Year Over Year 9/2003 to 6/2006 Est.



ENER Sequential Revenue Growth

December 2002 To June 2006 Est.

