

DESI QUARTERLY REPORT

MARCH 2006 • VOLUME 3

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DESI Quarterly Performance

WHERE IS THE BEEF?

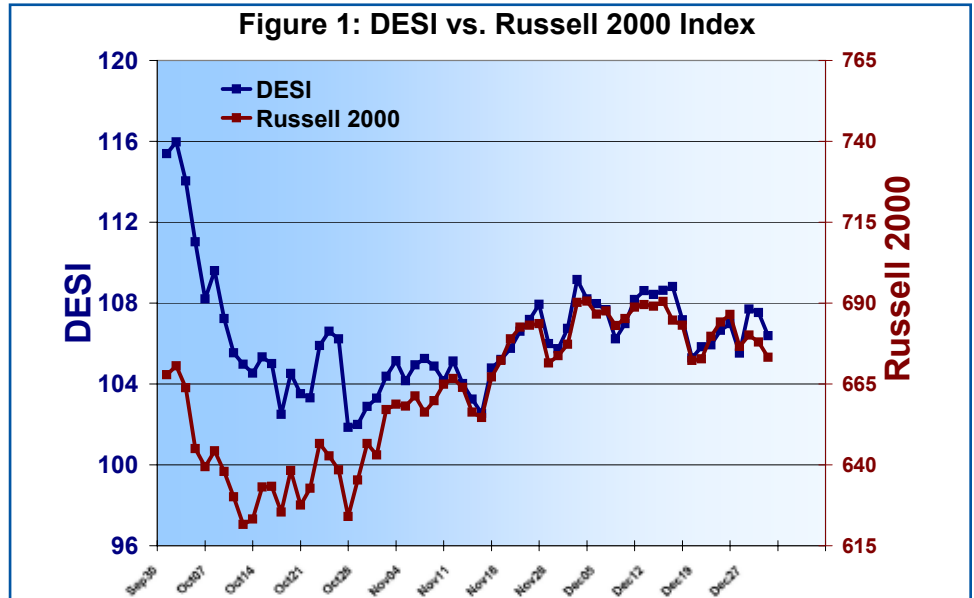
Author: Thomas Brunetto
DEFG Managing Director

The DESI had a breakout Q3. There was a lot of excitement about the sector and energy was front and center for the country. In Q4 the excitement about the economy as well as the energy sector seemed to fade. Even though energy prices remained relatively high in Q4, it seemed that the Distributed Energy & Technology sector, represented by the DESI, returned to a more normal pace with companies in the sector conducting business as usual and focusing on turning the new opportunities generated by Q3 events into reality. The DESI retreated from last quarter's highs declining 7.8% in Q4. Some of this decline

is a correction from the speculation that occurred in Q3; however, there are also concerns about whether companies can successfully move to commercialization and sustained profitability. In essence the investors are asking, "Where is the beef?"

Figure 1 shows the results for the DESI and Russell 2000 Index in Q4. Both the DESI and Russell 2000 declined at the beginning of the quarter, October 3rd to October 27th, by 11.9% and 6.7% respectively. The sharper decline in the DESI reflects the added speculation that occurred in

the energy sector in the prior quarter, especially in the Renewable Hydrogen & Fuel Cells segment. During the remainder of the quarter, both indices regained some of their early losses, with the Russell 2000 gaining 0.1% compared to the DESI decline of 7.8%. The DESI decline was driven by declines in the heavily weighted Power Quality and Storage, and Renewable Hydrogen & Fuel Cells segments of 14.6% and 11.2% respectively. The Wilderhill Clean Energy index, an index focused on renewable energy, declined 8.5% for the *(WHERE IS THE BEEF? continued on page 2)*



DESI Charged and Grounded Companies 2005 Q4

DESI Charged Stocks

Company	Symbol	Quarterly Growth (%)
Cooper Cameron Corp.	CAM	12.0
Evergreen Solar Inc.	ESLR	14.2
Intergraph Corp.	INGR	11.4

DESI Grounded Stocks

Company	Symbol	Quarterly Growth (%)
Beacon Power Corp.	BCON	(38.0)
Ballard Power Systems	BLDP	(25.2)
Mechanical Technology Inc.	MKTY	(27.5)
O2 Micro International	OIIM	(35.3)
Quantum Fuel Systems Tech	OTWW	(34.6)
SatCon Technologies	SATC	(27.5)

In the News

This section has been revised to provide our readers with additional highlights; comments are welcome.

Contracts & Agreements

Plug Power and Ballard Power Systems announced they were awarded a \$2 million contract by the US Department of Defense to jointly develop an advanced prototype proton exchange membrane (PEM) fuel cell system to be used in backup power applications. This represents collaboration among fuel cell developers, systems integrators and government to accelerate the commercialization of fuel cell technology.

Emerson Electric, a diversified industrial electrical equipment manufacturer, plans to buy Artesyn Technologies, which provides power conversion equipment as well as hardware and software for a range of communications and original equipment manufacturers. The estimated price is \$500 million.

Capstone Turbine and Broad USA, Inc., a manufacturer of absorption chillers powered by recyclable energies, have signed a memorandum of understanding to jointly develop fully integrated cogeneration

(IN THE NEWS continued on page 3)

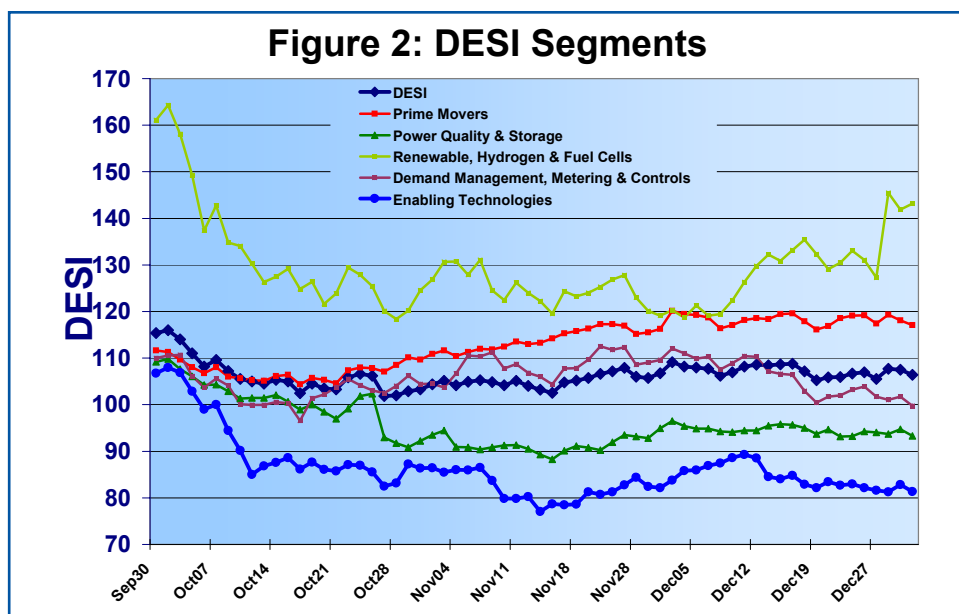
(WHERE IS THE BEEF? continued from page 1)

quarter. Volatility was another characteristic demonstrated by the DESI in Q4. Volatility is a measure of the risk associated with this sector, and also represents an opportunity for investors. The DESI reached its low and high point for the quarter within the month of October. The high point for the DESI was October 3rd at 115.97, and its low point was reached on October 27 at 101.84. The average daily percentage change of the index during the quarter was 1%, with a maximum positive and negative change of 2.5% and 4.3% respectively. Out of the 63 trading days in the quarter, the DESI changed direction 27 times or 42.9%. The DESI ended the quarter at 106.4 which was below its 30 day moving average of 107.0 at the end of Q4.

Figure 2 shows the performance of the DESI segments. While all the segments had positive growth in Q3, only the Prime Movers segment, which was a top performer in Q3, continued its positive trend and grew 5.7% in Q4. It should also be noted that this segment has a number of profitable companies that have successfully commercialized their products. The remaining segments declined, led by the Enabling Technologies segment, which declined at 23.8%. This segment was also the worst performing segment last quarter and did not experience the uplift that most of the other segments did as a result of higher energy prices and the hurricanes. While the energy policy

act and recent order announcements are expected to have a positive impact on this segment, the companies have yet to show that they can manage the transition to commercialization and achieve profitability. The remaining segments declined as follows; Demand Management, Metering & Controls (9.3%), Renewable Hydrogen & Fuel Cells (11.2%) and Power Quality & Storage (14.6%). Most of the decline in the segments occurred in the beginning of the quarter. For the Demand Management, Metering & Controls segment, the decline occurred towards the end of the quarter. See our analysts' reports for further details on each of these segments.

Since the close of Q4, the trends have reversed. The DESI participated in Wall Street's Christmas rally, with the DESI increasing 8.5% for the month of January. We will see if that is a good omen for the year. Also energy was front and center in President Bush's State of the Union Address, where he announced that the U.S. was addicted to Middle East oil and proposed additional alternative energy programs. All of this results in the DESI being at 107.8 on February 13th, or an increase of 1.3 % from the end of Q4. This compares to the Russell 2000 and Wilderhill Clean Energy Index which increased 1.1 % and 22.3 % respectively. For this sector to have a breakout year and continue its development it will have to demonstrate that it can manage the transition to commercialization and sustained profitability and give investor's answers to the question- Where is the beef?



In the News (Continued from page 2)

systems. The companies will utilize Broad's chillers, integrated with Capstone's microturbines to create a seamless solution to maximize heat recovery efficiency from the microturbine's waste heat.

Hydrogenics will supply an electrolyzer-based hydrogen refueling station to Basin Electric Power Cooperative in Minot, N.D. Hydrogenics also is supplying compression, storage and dispenser equipment. The station is one of the first US-based hydrogen fueling stations to use electricity from a wind power resource to produce hydrogen from water.

American Superconductor has received an order for two D-VAR (Dynamic Volt-Amper Reactive) voltage regulation systems to help meet grid interconnections requirements for an Australian wind farm. The order is from Lake Bonney Wind Power Pty Ltd., through its operator, National Power Co.

Power-One has expanded its patent infringement litigation against Artesyn Technologies to include two more patent applications and has combined its suit against Artesyn with a case against Silicon Laboratories over patents in a "family" of digital power supply controllers.

Leadership changes

Ambrose Schwallie has joined Distributed Energy Systems as its CEO. He comes to the company from Washington Group International, an integrated engineering, construction, and management solutions company, where he served as president of its defense business unit. Walter "Chip" Schroeder, founder of Proton Energy Systems, will continue as president of Distributed Energy Systems.

FuelCell Energy has promoted R. Daniel Brdar to CEO. He had been its president COO. He will replace Jerry Leitman as CEO. Leitman will

remain board chairman. Brdar joined the company in 2000 and was named COO in 2005.

Power-One has restructured its executive positions, separating the positions of chairman and CEO. Steve Goldman will remain as chairman, while William Yeates assumes the title of CEO. Brad Godfrey was promoted to president and COO.

Intergraph Corp. announced that Preetha Pulusani, president, of its Security, Government & Infrastructure division, was retiring and will be succeeded by Ben Eazzetta, who had been the division's COO.

Beacon Power has hired Chet Lyons as director of marketing and sales. Lyons had been director of marketing and strategic planning for Evergreen Solar.

Richard Chleboski, co-founder of Evergreen Solar, was named vice president of Worldwide Expansion, a newly-created position. His CFO duties will be now be handled by Donald Muir, who had been CFO with American Power Conversion.

Active Power has hired Ian Bitterlin as vice president of sales for its European, Middle East, and African markets. He joins the company from Emerson Network Power, where he was managing director of the UK and Holland.

Milestones

Capstone Turbine, said in January that two of its 30 KW micro turbines, currently operating at New England Gas Co., surpassed a milestone of more than 45,000 hours of near continuous operation.

American Wind Energy Assn. said that wind power in the US expanded by more than 35% in 2005. Wind now provides over 9,200 MW in the US.

— OUTLOOK —

DESI Quarterly Report
Jamie Wimberly

In all the exuberance over the energy technology sector, there is an open secret that most analysts do not focus on too much: The majority of companies are not profitable, and some are not even close to being profitable.

Savvy investors make investments with the expectation of profits in the future. In other words, investors do not buy the stocks for their current value, but for a share of expected earnings and growth in the future. Most technology firms begin as “growth” companies and investors place their bets on which ones will survive and prosper.

Yet, many of the technologies and companies in the energy technology sector have been around for five years or more. Many do not even bother to make projections any more on when they will be profitable, preferring to focus on their new products and services, design wins, management restructuring, and additions to the top line.

A first step towards profitability for emerging or growth companies is to bolster their gross margins. A typical milestone would be 10 to 15 percent on their product offerings. Yet, while most companies are growing (bringing in more revenue), their underlying cost structure is growing as well, and growing fast in some cases, so you have some companies that are actually becoming less profitable.

In order to grow, you need to spend. That’s a given. There are also many variables that impact margins in the short term, including seasonality of sales, managing inventory, ramping up production, the variability of margin when relying on third-party OEM’s and other sales channels, component and material costs, building out direct sales, R&D expenses, to name a few. Then there are the “charges,” the landmines that can blow a quarter up with one sentence in a press release.

But over time, putting aside the different reasons given on a quarterly basis, it is management’s responsibility to address low margins and negative earnings per share year after year.

Companies ultimately need to either become profitable or demonstrate that they have a good grasp of what it takes to be on the path to profitability to be able to attract capital and survive in the long-term. The DESI analysts have all been instructed to ask hard questions and to really focus on the bottom line this year.

What is it going to take for the companies in this sector to move towards profitability, or at the very least, to increase margins in 2006? I offer a few very basic observations.

Top Line: The top line is all about increasing revenue, and most of the DESI companies are doing a reasonably good job to accomplish this. Still, companies need to continue to expand, in some cases, streamline, in other cases, restructure, and do whatever they need to do to increase sales revenue – especially the sales revenue associated with higher margin products and services. Too many companies are still trying to be everything to everyone, with an ever burgeoning list of new products and services that lose money and are distracting to management and the market.

Moreover, too many companies still are coming to the market with a widget rather than a value proposition. Companies need to look and act more like the customers they serve, e.g., hiring sales agents with backgrounds in the important customer segments, communications and packaging

relevant to the customer, etc., to be long-term winners. Money spent on market research is money well spent.

Bottom Line: How do companies get to 25 percent to 30 percent margins, or in other words, become profitable? To improve the bottom line, companies need to cut costs, and to better manage the risks/ variability of the factors impacting margin. This represents a pretty basic proposition but, admittedly, a difficult one with a lot of moving parts.

The test over the coming months to improve the bottom line will be to align costs with growth in order to improve margins. Management will need to convincingly explain how SGA, R&D costs, and other major cost centers of the company are going to remain stable or be reduced over time, even as investments are made to improve the top line and the company grows. Companies don’t always have to be bigger to be better.

In summary, it is time to talk about increasing margins and moving towards profitability in 2006. For those energy technology companies that are not profitable, it is time to be forthright about what it is going to take to increase margins and become profitable, and how long it is going to take. Investors can be expected to be patient for only so long.



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>> DESI Index Committee Meets <<

The Distributed Energy and Technology sector is dynamic and constantly changing. New companies are created, existing companies grow and morph into different businesses, and the sector consolidates. Like the sector, the DESI is meant to be a “living” index that changes to reflect the changes in the sector. A rigorous process is used to update the DESI to reflect the changes in the sector. Updates include adding companies to and removing companies from the DESI, as well as changes in the rules that govern the DESI. Updates are suggested by DEFG, our analysts and the public through nomination forms available on DEFG’s website www.defgllc.com. The process is managed by DEFG and the DESI Index Committee (Committee) approves any changes. The Committee is chaired by Tom Brunetto, Managing Director DEFG, and its members include:

NAME	COMPANY
Joe LaCorte	S-Network
Jamie Wimberly	DEFG
Shalom Frank	Pareto Energy Ltd.
Josh Meyer	Independent Consultant
Brian Fratus	Artemis Energy Fund
Nat Treadway	DEFG
Tom Brunetto	DEFG

In January the Committee held its first meeting. It performed an extensive review of the DESI, DESI companies and the many changes that occurred in the sector during the last six months. The review concluded that the DESI performed well over this period and met its objectives. They also indicated that opportunities to improve the DESI existed to keep it aligned with the fast paced changes occurring in the sector. As part of this review the Committee:

- Considered 43 companies as possible candidates to be part of the DESI. After an analysis of their financial performance and ability to meet the DESI criteria, 15 companies were identified as candidates.
- Recognized that over the last six months the technologies of renewable energy, hydrogen and other non renewable alternative energy sources have advanced significantly. They felt the DESI should reflect these advancements and the unique business aspects of these different technologies. The Committee agreed to consider the addition of a 6th segment to the DESI called Alternative Fuels & Fuel cells.

A summary of committee’s actions follows. These will enhance the DESI’s representation of the sector and broaden DESI’s representation. The changes become effective January 2, 2006:

- The Committee felt the DESI should have a minimum market capitalization criterion. It agreed to add a criteria that each DESI company must have a market capitalization of at least \$50 million on the last day of the period under review.

- In response to the technology changes discussed above, the Committee agreed to add a new segment to the DESI called Alternative Fuels & Fuel Cells. See the article on the following page.
- With the addition of the new segment, the Committee agreed to realign the existing Renewable, Hydrogen and Fuel Cells segment to focus on renewable energy technologies and renamed the segment Renewable Energy. Companies were moved to reflect this realignment.
- While the DESI had a minimum daily trading requirement, the Committee wanted to make sure there was sufficient trading in the DESI stocks. It decided to modify the existing criteria to require that each DESI company maintain an average daily trading volume of 50,000 during the prior 6 months.
- After a review of the 15 candidates, the Committee decided to add the following twelve companies to the DESI.

COMPANY	SEGMENT
Applied Films Corp. (AFCO)	Enabling Technologies
Automation Tooling Systems Inc. (ATA)	Enabling Technologies
Day Star Technologies Inc (DSTI)	Renewable Energy
Electro Energy Inc. (EEEI)	Power Quality & Storage
Emerson Electric Company (EMR)	Demand Management, Metering & Controls
Environmental Power Corporation (EPG)	Alternative Fuels & Fuel Cells
International Rectifier Corporation (IRF)	Enabling Technologies
Medis Technologies Inc. (MEK)	Demand Management, Metering & Controls
Maxwell Technologies Inc. (MXWL)	Power Quality & Storage
Power Intergrations Inc. (POWI)	Enabling Technologies
Spire Corporation (SPIR)	Renewable Energy

- Based on their review the Committee decided to add the following companies to the DESI Watch List
- Presently the Committee meets once a year to review the

COMPANY	SEGMENT
Intermagnetics General Corporation (IMGC)	Enabling Technologies
Ormat Technologies Inc. (ORA)	Renewable Energy
Cooper Cameron Corporation	Prime Movers - Possible Removal
SunPower Corporation (SPWR)	Renewable Energy

DESI. With the volatility and number of changes that occur in the sector, the Committee decided to meet every 6 months, in June and December, to review the DESI.

The list of companies included in the updated DESI, along with the 2006 DESI weights is shown on the following page. A report that provides more detail on the Committee’s actions, as well as the DESI selection criteria is available on the DEFG website www.defgllc.com.

DESI EXPANDS With New Segment

While fossil fuels will remain important to the US economy for a long time, new fuels and technologies that use those fuels such as fuel cells are emerging as viable alternatives and new sources of energy with less environmental impacts. In recognition of this, the DESI Index Committee approved the addition of the Alternative Fuels & Fuel Cells segment, to the DESI at its recent meeting. The addition of the Alternative Fuels & Fuel Cells segment will track the changing forces and pressure in the energy markets to find new sources of environmentally friendly fuel.

Coverage of the new segment and the companies in the segment will begin with Q1 2006 earnings. The new segment focuses on companies that address hydrogen, hydrogen fuel systems, fuel cells, bio fuels, and other alternative fuels that require combustion or chemical transformation of hydrocarbons to release usable energy. The intent is to create a new sector that broadly considers the not-yet-fully revealed opportunities in a hydrogen economy and fuel cells.

The DESI Index Committee added this segment at this time because it felt:

- It has excellent growth prospects with the advancement in technology, the increased policy interest in clean energy and government funding, and the expected continuation of higher energy costs
- Alternative fuels and fuel cells are expected to have cross impacts on other DESI segments, and as a result this new segment will complement and improve the existing DESI structure
- Significant capital is expected to flow to the segment
- Companies in the segment are getting closer to commercializing their products and services.
- With growing concern over environmental impacts, and concerns about reliability and security of supply, customer preferences for these energy resources is on the rise

Many of the companies in this new segment are already in the DESI. These were transferred from the old Renewable, Hydrogen and Fuel Cell segment. Bio fuels (biomass), landfill methane, and municipal solid waste, often classified as "renewable", are also included because the Committee believes their issues more akin to alternative fuel companies. See the list of companies on this page for those included in the new segment.

Company	Symbol	DESI Weight	Segment Weight
Prime Movers			
Ingersoll-Rand Company, Ltd.	IR	7.8%	56.1%
Cooper Cameron Corporation	CAM	3.0%	21.4%
Cummins, Inc.	CMI	2.1%	15.2%
Capstone Turbine Corporation	CPST	1.0%	7.3%
Power Quality & Storage		22.3%	100.0%
American Power Conversion Corporation	APCC	17.1%	76.6%
Power One, Inc.	PWER	2.0%	9.1%
Maxwell Technologies, Inc.	MXWL	0.9%	4.2%
C&D Technologies, Inc.	CHP	0.8%	3.4%
Active Power, Inc.	ACPW	0.7%	3.3%
Beacon Power Corporation	BCON	0.4%	1.9%
Electro Energy, Inc.	EEEE	0.3%	1.3%
Renewable Energy		8.9%	100.0%
Energy Conversion Devices, Inc.	ENER	4.8%	53.5%
Evergreen Solar, Inc.	ESLR	2.6%	29.1%
Distributed Energy Systems Corporation	DESC	1.1%	12.4%
DayStar Technologies Inc.	DSTI	0.2%	2.6%
Spire Corporation	SPIR	0.2%	2.4%
Demand Management, Metering & Controls		27.1%	100.0%
Emerson Electric Company	EMR	18.9%	69.9%
Itron, Inc.	ITRI	3.9%	14.5%
O2Micro International, Limited	OIIM	1.6%	5.9%
Echelon Corporation	ELON	1.2%	4.6%
Intergraph Corporation	INGR	0.7%	2.6%
Metretek Technologies, Inc.	MEK	0.5%	1.7%
SatCon Technologies Corporation	SATC	0.2%	0.8%
Enabling Technologies		19.8%	100.0%
International Rectifier Corporation	IRF	9.0%	45.3%
ATS Automation Tooling Systems, Inc.	ATA.TO	3.9%	19.7%
Power Integrations, Inc.	POWI	2.8%	14.1%
Applied Films Corporation	AFCO	1.2%	6.2%
American Superconductor Corporation	AMSC	1.0%	5.2%
IMPCO Technologies, Inc.	IMCO	0.6%	3.0%
Quantum Fuel Systems Technology	QTWW	0.6%	2.8%
UQM Technologies	UQM	0.4%	1.9%
Mechanical Technology, Inc.	MKTY	0.3%	1.7%
Alternative Fuels & Fuel Cells		8.1%	100.0%
Ballard Power Systems	BLDP	1.9%	23.2%
Plug Power, Inc.	PLUG	1.7%	21.7%
Medis Technologies, Ltd.	MDTL	1.6%	20.1%
FuelCell Energy, Inc.	FCEL	1.5%	18.4%
Hydrogenics Corporation	HYGS	1.1%	14.1%
Environmental Power Corporation	EPG	0.2%	2.6%
Total		100.0%	

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Analyst Segment Reports

Prime Movers

Analyst:

Dr. Shalom Flank

Company Symbol	Share Price Change	Revenue Change
CPST	(15.8)%	50%
CMI	2.0	17
IR	5.6	10
CAM	12.0	29

Share price comparison based on Q3 ending price, revenue change based on same quarter last year.

The Prime Movers segment offers lessons on profitability to the DESI's emerging companies. The innovative start-ups of decades past can become the successful (if somewhat boring) industrial powerhouses of the future. The struggle switches from achieving profitability to staying fresh – growing the top line and improving margins without threatening current revenues.

For example, **Cooper Cameron (CAM)** has engine manufacturing roots back to steam engines at its Mt. Vernon, OH foundry in the 1860s. As a manufacturing business, that branch has been cut off since the 1999 sale to Rolls-Royce. But the less cyclical and higher margin parts, service, and overhaul business remains an active component of Cooper Compression, now reaching engines that the company never manufactured. As a whole, the company is either focusing on this type of high-margin aftermarket business (a minority of revenues) or on segments where they have a dominant market share (the company's main thrust), such as valves for subsea drilling. The results continue to impress: one of the DESI's "charged" companies this quarter, Q4 earnings were up 89% year-over-year, and their record backlog stood at \$2.16 billion at quarter's end. Questions remain about the company's commitment to Cooper Compression, and how the company as a whole will fare with the next downturn in the oil & gas exploration market.

Cummins (CMI) reflects this quarter's Outlook advice, becoming less of a widget company and looking more like the customers they serve. For example, non-cyclical revenues grew 2.5 times faster than cyclical. Quarterly results no longer emphasize raw numbers of engines built – for the power generation segment, such numbers are not even reported. End user service, specialty power electronics, and joint ventures with overseas manufactures provide a growing portion of revenues – and an even greater portion of earnings. As a result, PowerGen saw continuing impressive gains in Q4 earnings, up over 120% from last year, even as year-over-year segment revenues increased a modest 11%. The company is committed to remaining at the technological cutting edge as tightening emissions standards take hold, so look for continued high-margin and non-cyclical gains as CMI's depth, breadth of expertise, and company-wide focus on emissions builds a new competitive advantage.

As the upstart in this segment, **Capstone (CPST)** can only dream of the results of its older brethren. The company is emphasizing a "cookie cutter" approach to achieve long-term profitability: compress the timeline from customer inquiry to site-specific proposal to signed contract to installation. For example, CPST has poured a lot of effort into securing a blanket Materials Equipment Acceptance (MEA) from New York City's Department of Buildings, giving purchasers the assurance they need for rapid installation. To support this approach, the company is also offering a broader set of options for pre-packaged integrated systems, planning a new smaller cooling-integrated system (a joint venture with Broad), shipping the first landfill gas systems this quarter, and rolling out an elevator-specific package next quarter. But they also faced a few setbacks this quarter. The cookie cutter approach takes time to implement just on the technical level (e.g., for elevators, or integrating with Broad chillers); then more time to implement on the regulatory level (e.g., the MEA approval); and still more time to change perceptions and gain customer acceptance. With a \$14.2M loss this quarter (45% higher than a year ago), it's a race against available capital. The best bet is still that CPST can win that race, but it's a marathon, not a sprint.

Analyst Segment Reports

Finally, **Ingersoll-Rand (IR)** is one of the more successful industrial conglomerates in focusing on profitability, through cost controls, top-line growth and acquisitions, and strategic emphasis on their less cyclical, higher margin business units. Annual revenues topped \$10B for the first time, with recurring revenues growing almost twice as fast as overall revenues (18%). Q4 earnings from continuing operations increased 23% year-over-year and 11% from last quarter, consistent with 20% CAGR in EPS since 2000. Operating margins inched up again, from 12.1% last quarter to 12.7%.

Yet the company is still willing to make bets on significant new technologies, products, and acquisitions. Some don't work out, such as the recently terminated Pathway joint venture with GM for electric vehicles. Most relevant for distributed energy, IR reaffirmed its commitment this quarter to its PowerWorks microturbine development program. Despite \$85M invested since 1998, and \$16M in 2005 alone, the 70kW and 250kW packages have not yet found much market traction. But especially for Asian markets, IR is now confident that they have a product that works and that will achieve customer acceptance. They are now ramping up sales and installations capabilities, not for peak load shaving as originally intended, but for environmental improvement and CHP-based operating savings. Look for this program to finally achieve break-even in 2006.

Shalom Flank does not own stock in any of the companies reviewed.

Power Quality and Storage Segment

Analyst:
Jamie Wimberly

Company Symbol	Share Price Change	Revenue Change
APOC	(15.1)%	13%
ACPW	(6.8)	9
BCON	(38.0)	N/A ¹
CHP	(19.0)	N/A
PWER	8.7	(10.5)

Share price comparison based on Q3 ending price, revenue change based on same quarter last year.

¹ *Company did not release quarterly information by time of publication.*

The Power Quality & Storage segment had a rough Q4, slipping 14.6% as a whole. The segment's performance was impacted by missing sales and revenue forecasts translating into earnings per share losses for most of the companies in the segment. In addition, companies in the segment continue to struggle to maintain their gross margins as costs increase in order to grow.

But first, let's focus on the positive. Kudos need to be given to **Power One (PWER)** for getting back to profitability, reporting net earnings in Q4 of \$0.04 per diluted share on revenue of \$64.3 million. The company went through a difficult, costly restructuring for most of 2005 and their efforts are beginning to pay off. PWER is giving guidance that they secured and/or deepened their relationships with tier one customers, the company is excited about their new products, including their Z-One digital power product line (with margins expected to be 5 percent or higher than their legacy products), and expect net sales to increase 10 percent to 15 percent for 2006 over 2005.

These are bold predictions. But as a shareholder, I have been impressed at how PWER seems to have restructured

Analyst Segment Reports

the company successfully. Don't be surprised if they surpass their own projections going into 2007.

The rest of the segment treaded water in Q4 or faced a steep decline in their share price. **Beacon Power (BCON)** was the worst performer in the entire DESI for Q4, shedding 34% of their share value in the quarter. To be honest, this is not a surprise given the big run up they had in the preceding quarters. The company, being a developmental stage company and thus at a different stage than the others in the segment, is a bit of an enigma, needing to focus on getting their technology validated and commercialized rather than offering much guidance or information to investors. As a result, BCON's share price is being driven more by rumor and innuendo from day traders than anything else. Watch how the company's demonstration projects of the Smart Energy Matrix turn out in California.


For the quarter, the biggest disappointment has to be **Active Power (ACPW)**. While the company recorded some big wins, including an impressive 11 MW order, Active Power continues to struggle with getting all the moving parts of their business aligned to increase margins. They have done a good job at broadening and securing their offering and are now capable of going to market with the full 3 stage UPS offering. Their new product, the Cool Air DC, has excellent prospects. Yet, the revenue range (\$4.5 million to \$5.5 million) has not changed much even as SGA and other costs have begun to increase. ACPW is going to have to do better than -0.13 cents to -0.15 cents per share to succeed in the long run.

The other two companies in the segment, **American Power Conversion (APCC)** and **C&D Technologies (CHP)**, treaded water for Q4. APCC reported record revenue for Q4 but earnings per share declined 68% from Q4 2004. CHP has not reported yet, but the expectation is that the company should be at or nearing the end of its share price slide.

In summary, companies in the Power Quality & Storage segment have some work to do in 2006 to better align their growth strategies with cost structures. However, given the

new products being rolled out towards the end of 2005 and into 2006, and expected announcements of design wins and new customers due to some real accomplishments in restructuring sales and marketing efforts, the year should prove to be a good one for the segment.

Jamie Wimberly owns stock in ACPW, BCON and PWER.



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ECR Technologies, Inc.

Analyst Segment Reports

Renewable, Hydrogen & Fuel Cells

Analyst:
Brian Fratus

Company Symbol	Share Price Change	Revenue Change
BLDP	(25.2)%	(13.6)%
DESC	(9.1)	100.0 ¹
ENER	(9.2)	50.5
ESLR	14.2	(10.3)
FOEL	(22.8)	64.9
HYGS	(19.5)	65
PLUG	(24.6)	N/A

Share price comparison based on Q3 ending price, revenue change based on same quarter last year.

¹ From preliminary reports of results for revenues in Q4.

The DESI segment for Renewable, Hydrogen and Fuel Cells experienced a significant decline of 11.1% in Q4 in contrast to its market surge of 61.1% in Q3. Only **Evergreen Solar (ESLR)** experienced increased share price performance in the group gaining 14.2% for the period. The group's performance experienced a significant drag from the fuel cell companies whose shares all dropped over 20% for the Q4 versus Q3. **Distributed Energy Systems (DESC)** and **Energy Conversion Devices (ENER)** pulled back more modestly, 9.1% and 9.2%, after having gained 100% and 98%, respectively, in Q3.

Huge demand and incentives for solar energy solutions sparked market surges in share prices resulting in significant volatility. Recent articles and analyst reports point to the impending shortage of silicon supply to meet the demand for photovoltaics products. This surge in demand for silicon for photovoltaics is predicted to soon exceed the demand for usage in semiconductors. Polysilicon prices have more than doubled over the past two years. As a

result of demand incentives such as the aggressive public policy initiatives of Germany and the recently announced California \$2.9 billion incentives program, manufacturers of the commodity are considering significant new capacity but are fearful of being burned again after demand in the semiconductor market plunged.

ESLR has recently entered into long term joint ventures with suppliers to secure supply of solar grade silicon to be utilized in its proprietary String Ribbon™ wafer technology which generates nearly one-and-one-half times as much power per pound of refined silicon as conventional methods. ESLR recently signed a \$100 million agreement to supply photovoltaic modules to S.A.G. Solarstorm in Germany, and last November executed an agreement for a minimum of \$70 million of photovoltaic modules with Powerlight. Both are four year supply agreements. ESLR has received significant market attention as it completes its new 30 megawatt capacity Ever-Q facility in Germany; it has stated it will evaluate expansion of the facility to 120 megawatt capacity as it evaluates its performance and the market demand. ESLR had not reported earnings as of the time the article was written.

Similarly ENER experienced large demand as revenues for Q4 2005 increased 50% as compared with Q4 2004. This was the eighth consecutive quarter that ENER experienced double digit percentage increases in revenues at the subsidiary United Solar Ovonic. Demand for Ovonic solar products continues to grow as the company constructs a new 25 MW facility in Michigan. Production is expected to commence in fall of 2006. ENER share prices fell 9.2% for Q4 despite United Solar achieving a record operating profit of \$1.8 million for Q4, but ENER as a whole still had a net income loss of \$5.7 million. The company entered into an agreement with the Army to develop a 7 MW solar project which will be the world's largest solar power residential community. In January the company completed another joint venture with Chevron for production of high power NiMH batteries for transportation applications and will supply GM for its first hybrid, the 2007 Saturn VUE. This marks a key step in Cobasys strategic vision for the electric vehicle market.

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DESC experienced a share price decline of 9.1% in Q4 after the 98% gains of Q3. The company appointed Ambrose Schwallie as CEO in January. Dr. Robert Shaw, Chairman, stated that under Chip Shroeder's direction the company emerged from early stage to commercial, and that under Schwallie's command the company is expected to accelerate its growth and progress toward profitability. The Northern Power division has added considerable market and financial strength to DESC. The company will not officially report its Q4 results until March, but preliminary reports indicate 2005 total revenues doubled over 2004's \$22 million in revenues. The company also expects its Q4 per share results will improve over its Q4 2004 loss of \$0.11.

The fuel cell companies all suffered a difficult Q4 after overall healthy share price gains in Q3. **Ballard (BLDP)** which was down 25.2% for the quarter appointed its Chairman John Sheridan as its new permanent President and CEO. Sheridan stepped down to take official direct control of the company on Feb. 22nd after having served a period as temporary CEO. He stated Ballard had strengthened its financial position and is establishing traction in near term fuel cell markets. The company reported a year end cash balance of \$233 million and a 150% increase in fuel cell shipments to power generation markets. BLDP's net loss of \$87 million in 2005 was a significant improvement over its previous year loss of \$175.4 million. Revenues for Q4 were down 13.6% as compared to the prior year, \$17.7 million versus \$20.5 million due to the sale of BPSAG and lower heavy duty bus fuel cell shipments. Sheridan stated, "2005 was an important year for Ballard as we repositioned the company and developed a commercial strategy with a sharper focus, which has opened new opportunities for Ballard in materials handling and backup power markets."

Fuel Cell Energy (FCEL) shares fell 22.8% for Q4 and revenue decreased 10.3% to \$7.9 million versus \$8.9 million for Q4 2004 as the company reported a Q4 net loss of \$19.5 million as compare to a Q4 2004 loss of \$21.0 million. For the year 2005, FCEL experienced a net loss of \$74.2 million versus \$87.4 million in 2004 for common shareholders. The company is expecting significant new

fuel cell demand for multi megawatt distributed energy fuel cell projects with the recent enactment of the federal energy act and alternative energy power projects.

Plug Power (PLUG) plunged 24.6% for Q4 after having been unchanged in the period from Q2 to Q3 in 2005, despite the company receiving an increase of 325% in orders for its primary product Gen Core. PLUG received orders for 306 units in 2005 versus 94 in 2004 and has a 2006 order backlog for 190 units. The company stated that it met its target of decreasing direct material costs by more than 25% over 2004 achieving a reduction of 29% in costs. The company improved its balance sheet at the end of 2005 by adding \$70.6 million in cash through the sale of common stock. The company will report its results at the end of February for Q4 and year end 2005.

Hydrogenics (HYGS) was down 19.5% for Q4 despite reporting a 65% increase in revenues from \$5.5 to \$9.0 million supported by the acquisition of Stuart Energy. Net Income loss decreased from \$10.3 to \$9.1 million for the period as compared to Q4 2004, but 2005 losses overall increased from \$33.5 million to \$37.3 million compared with 2004. "We delivered a strong fourth quarter finish with \$20.4 million in new orders across all three business units, giving us a strong entry point for the new year", stated President and CEO Pierre Rivard. The orders include an \$8 million military OEM contract and a multi-million dollar follow-on order from General Motors for testing services.

In recent months there has been a wave of optimism for alternative energy companies and leading up to the State of the Union address there were surges in many companies share prices. Stocks began pulling back almost immediately after the President's speech when early entrants sold positions and share prices experienced considerable volatility. Many investors were likely caught in the speculative run-up in prices and may experience significant losses. The technologies being developed by many of these companies may well be the ones that eventually succeed but there are likely to be many corporate and investor casualties along the way.

Brian Fratus does not own stock in any of the companies reviewed.

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Demand Management, Metering and Controls

Analyst:
Joshua Meyer

Company Symbol	Share Price Change	Revenue Change
ELON	(15.0)%	(40.4)%
INGR	11.4	(0.2)
ITRI	(12.3)	21.8
OIIM	(35.3)	19.9
SATC	(27.5)	(22.5)

Share price comparison based on Q3 ending price, revenue change based on same quarter last year.

The fourth quarter was challenging for many of the DESI Demand Management, Metering and Controls companies. Five of the index members' revenue declined in the quarter. Of the two firms that had revenue increases, only one firm, **Itron (ITRI)**, had an increase in profits. **O2Micro (OIIM)** had an increase in revenues but a decline in profitability. Share prices of four out of five index firms have rebounded slightly (**Intergraph (INGR)** is the exception), since the quarter's end, but many fundamental challenges remain for two of the index members.

SatCon (SATC) remains a firm without focus. Relative to its size, (\$40 million in annual revenue) it is engaged in a diverse number of activities. The net effect is a drain on cash. The firm believes its cash burn rate is sustainable to continue operations for another 24 months – making the stock unattractive except for investors with a strong appetite for risk.

Echelon (ELON) is the other index member with fundamental challenges. Revenues declined severely, in part due to the reduction in sales to its major customer Enel. The good news however is the expansion of its metering business and a sizeable contract for a major Northern European utility company.

Metering is a central aspect of demand management and control. The old adage, "If you cannot measure it, you cannot manage it," is particularly meaningful to the energy technology sector. To realize the benefits of a liberalized energy market, advanced metering technologies are critical to actively manage energy.

Of the five firms in the Demand Management, Metering and Controls segment, two are actively competing in the intelligent metering market. ITRI is a long-established market leader. ELON is gaining increasing focus on the meter market.

Automated meter reading technologies (AMR) were first introduced in the 1970's. Today they account for approximately 25% of the installed meters in the US. Over the past ten years the platforms have evolved to a point where new advances are no longer significant technical developments but rather incremental improvements. Prices and margins for the actual meters are under increasing pressures.

The good news for investors is that the meter is at the heart of a complex energy management system. Energy management and billing are functions enabled by the meter, but controlled by other technologies. Thus, successful metering companies provide integrated software and hardware systems, all of which is supported by application engineering and technical consulting services. While the hardware is under the most severe pricing pressures, the supporting technologies and services are less price sensitive.

So where to invest? Of the two firms in the Demand Management, Metering and Controls segment, ITRI is the market leader providing approximately half of all AMR meters sold in North America last year. As to valuation, it is the only company in the Demand, Metering and Controls segment to post gains from start of Q4 to present. Driving the increase is ITRI's growth. New bookings for 2005 of \$655 were nearly doubled 2004 bookings. In addition Q4 sales included increases in higher margin software.

ELON by contrast is a firm that is increasing its focus on metering. However its transformation from a

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communications enabler to a true AMR player is no easy task, made more challenging by declining revenues of 32% from the prior year. During Q4 the stock declined 15% but has posted gains so far in 2006. On a positive note were recent metering orders from European utility Vattenfall for a large-scale project.

How large and how fast will the metering market develop? Central to addressing this question are fundamental drivers such as the growth of demand side management, energy efficiency, the liberalization of the transmission market, and slow but sure increases in labor (manual meter-reading) costs relative to the economics of AMR technology. As noted earlier, roughly a quarter of the 275 million gas, electric and water meters installed base of meters in the US utilize digital technology. Imagine a supermarket using mechanical cash registers today? The pace at which utilities adopt technology is slower than most other industries. However there is no question that change is coming, the question is at what pace.

Joshua Meyer does not own stock in any of the companies reviewed.

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Enabling Technologies

Analyst:
Tom Brunetto

Company Symbol	Share Price Change	Revenue Change
IMCO	(14.0)%	N/A
UQM	(6.1)	(12.5)%
AMSC	(23.9)	(41.9)
MKTY	(27.5)	N/A
QTWW	(34.6)	1272.9 ¹

Share price comparison based on Q3 ending price, revenue change based on same quarter last year.

¹ Acquired Tecstas Automotive Group over this comparison period

Q4 was not a good quarter for the Enabling Technologies segment: it declined 23.8%. This was on top of the lack luster performance in Q3, and for the second quarter in a row it was the worst performing DESI segment. As discussed last quarter, controlling costs and successfully

DEFG

Analyst Segment Reports

transitioning to commercial operations continues to be the challenge for a number of companies in this segment. In this quarter revenue growth was also added to the list of challenges for a number of companies.

The news was not all bad. For some companies, sales increased, and new products in superconductor voltage regulation and transmission, and energy efficient motors passed major milestones. Companies in this segment are developing a number of outstanding technologies that will be core to transforming the energy industry. The underlying trends of increased electricity use and energy prices, and the increasing concern about the environmental impacts associated with traditional energy sources and deliver approaches, provide significant opportunities for the companies in this segment.

Since Q4 the segment has experienced a Christmas rally and increased 32.0 % to 106.9 by February 13th. This is above the 30 day moving average of 101.3. Is this a good sign for Q1 2006 and the year? Only time will tell. What we do know is that to take advantage of the significant opportunities before them and achieve their appropriate reward the Enabling Technologies companies will have to demonstrate success in cost control and commercialization, and provide investors with a clear line of sight to profitability. This will not be an easy task.

Quantum Fuel Systems Technology (QTWW) stock was the worst performing stock in this segment. Its stock price declined 34.6% on top of the 18% decline last quarter. Approximately 89% of their revenue is related to G.M. and they have been significantly impacted by the troubles at G.M. Presently they are not providing bottom line earnings guidance. They are executing a diversification plan to identify additional revenue streams, but it will take time to realize the results of these efforts. At this point the performance of this company is directly related to the outcome at G.M.

UQM Technologies (UQM) continues to experience cost pressures as they build the facilities to transition to commercial operations. Their cost to revenue ratio increased from 1.291 in Q4 2004 to 1.555 in Q4 2005. Part of this

increase was the result of a write off of an accounts receivable from a bankrupt customer and increased Sarbanes-Oxley costs. Investors should keep an eye on this trend to see if it reverses in the upcoming quarter.

UQM has hired a national sales manager to aggressively increase sales and future revenue. In Q4 they reached a major milestone by winning an initial order for 10,000 vehicle auxiliary motors. Additional orders are expected resulting in an annual volume of \$7 million per year according to the company. With customer interest in hybrid vehicles increasing, this provides UQM with the platform to position them as a volume auxiliary motor producer in the automotive market.

American Superconductor Corp. (AMSC) experienced a significant drop in revenues over this quarter primarily from a slippage in the shipment of government orders. They also reduced revenue guidance for the second quarter in a row from \$55 to \$60 million in Q3 to \$52 to \$57 million in Q4. With lower Q4 revenue, their operating cost to revenue ratio increased from 1.114 in Q4 2004 to 1.613 for this quarter. Investors should keep an eye on this ratio for a downward trend especially in light of reduced revenue guidance.

Sales is not a problem for AMSC in Q4. Total order backlog reported by the company was \$37.1 million, more than double the Q3 ending backlog. In addition AMSC achieved two major milestones; TVA released two SuperVAR synchronous condensers to commercial production, and AMSC's scientists made significant progress with 2G HTS wire towards the amperage threshold required for broad commercialization. These are positive events for penetrating the growing electric utility transmission and voltage management market. Despite these achievements AMSC's stock price declined reflecting investors concerns over revenue levels and profitability.

Thomas Brunetto does not own stock in any of the companies reviewed.

ANALYST GAMING PORTFOLIO

Results and Reallocation

Last quarter we decided to give each of our analysts \$10,000 of gaming money for them to allocate among the companies in their segment. As a reminder this exercise is not a projection or recommendation, but a benchmark for comparing performance and a tool to help interpret their reviews.

We are pleased to report the results for the first period ending February 13, 2006. For each segment we will report the performance of the analysts allocated portfolios for the period that just closed as well as any revisions to that allocation for the next period. We would like to remind our readers that in some cases there will be significant change in allocations for the new period because of the addition of a new segment and new companies to the DESI.

For comparison purposes we compared the allocated portfolio to the performance of a portfolio in which an equal amount of money was allocated to each company in the segment. We remind the readers that the period for the gaming portfolio goes beyond the end of the quarter to provide the analysts with time to review quarterly results before they make their next pick. Therefore the portfolio results include the January increases which benefited all segments. The portfolios of all but one of the analysts increased in value. However when compared to the equally weighted portfolio the results were mixed with the allocated portfolio equal to the performance of

the equally allocated portfolio for one analysts and the allocated portfolio exceeding the equally weighted performance for two analysts.

Prime Movers- Shalom Flank

Dr. Flank allocated portfolio increased by 7% for the period. This compared to a 7% performance for an equally weighted portfolio. He decided to leave his allocation as it ended on February 13th as shown in the table below.

Company	Prior Period	New Period
CPST	\$4,000	\$4,063
CMI	3,000	3,437
IR	1,500	1,492
CAM	1,500	1,712

Dr. Flank believes that nothing fundamental changed for the prime mover sector this quarter. While CAM posted great results, he is still leery of the volatility in oil drilling, where they've concentrated so many of their bets. CPST had some bumps in the road, but they look short term, and will probably be forgotten by next quarter. And IR and CMI are executing their plans. All in all, Dr. Flank felt there was no real reason to change allocations this quarter.

Power Quality & Storage- Jamie Wimberly

Mr. Wimberly's allocated portfolio increased 4% for the period while the equally weighted portfolio increased 16% primarily from the 25% change in ACPW's stock price. Mr. Wimberly has realigned his portfolio for this period based on these results and to

accommodate new companies added to the DESI in his segment.

Company	Prior Period	New Period
APCC	\$4,000	\$3,000
ACPW	2,500	1,351
BCON	2,000	1,500
PWER	1,500	3,000
CHP	0	500
EEEE	NA	0
MXWL	NA	1,000

Mr. Wimberly adjusted his portfolio to reflect the fact that PWER returned to profitability in the quarter, thus receiving a greater allocation this quarter. He felt that while the company may have some spill over from losses in Q4 2005 into Q1 2006, they are primed for a great year in 2006. The APCC and APCW positions were reduced slightly but he still maintains a positive outlook for these companies. Mr. Wimberly feels that BCON remains a gamble and therefore has reduced his allocation because of risk. Since CHP seems to be close to bottoming out in regard to their share price slide over the last three months they received a small allocation for the next period. Of the new companies in the segment, MXWL occupies an interesting market niche and was allocated a portion of the portfolio, but EEEE's share price has been sliding for most of the year so Mr. Wimberly decided to sit that one out for now.

Renewable Energy- Nat Treadway

Mr. Treadway will be the analyst for this segment going forward. As a new analyst he was given \$10,000 to allocate among his segment companies. His

(Analyst Gaming Portfolio continued on page 14)

ANALYST GAMING PORTFOLIO

(Analyst Gaming Portfolio continued from page 13)
allocation is shown below

Company	New Period
ESLR	\$2,500
DESC	2,000
ENER	4,500
DSTI	500
SPIR	500

Mr. Treadway feels that the Renewable Energy segment remains speculative. All five stock prices have increased significantly during the past 2-3 years, but they remain volatile. He also feels that there is no clear winner among the companies and that as the solar market matures all five companies have the potential to continue their growth. Mr. Treadway believes that at this time the market caps of the companies (which drive DESI weights) represent a good way to allocate dollars.

Demand Management, Metering & Controls- Josh Meyer

Mr. Meyer focused his portfolio on two companies last period which resulted in a decline of 5%. This compared to the average portfolio performance of (1)%. For the next period Mr. Meyer is maintaining the course with this focused approach.

Company	Prior Period	New Period
ELON	\$0	\$0
ITRI	5,000	4,746
OIIM	0	0
SATC	0	0
INGR	5,000	4,746
MEK	NA	0
EMR	NA	0

Mr. Meyer maintained this allocation based on the two firms' financial health relative to the others in the group, the growth potential and their current market valuations. While he recognizes that ITRI has appreciated nicely since the publication of last quarter's DEFG report, he believes the firm's rapid growth will continue and that it is well positioned to take advantage of the untapped demand for advanced metering technologies.

Enabling Technologies- Tom Brunetto

Mr. Brunetto's allocated portfolio had the highest return among the analysts for the period 26%. But the segment also had the largest increase with the average portfolio increasing 25%. The results were driven by significant increases in AMSC and QTWW stock prices. Mr. Brunetto's new allocations also reflect the significant increase in the companies included in his segment

Company	Prior Period	New Period
IMCO	\$500	\$1,000
AMSC	2,500	2,500
MKTY	1,000	1,318
QTWW	2,000	1,500
UQM	4,000	2,500
IRF	NA	1,500
ATA	NA	800
POWI	NA	1,000
AFCO	NA	500

Mr. Brunetto feels that AMSC, even after its recent price run up is positioned to continue to grow and to take advantage of the trends in the energy sector with respect to voltage regulation as well as super conductor transmission opportunities. With the recent motor orders received by UQM

he expects some upward movement in price. QTWW's reliance on GM is a concern so he has reduced his allocation to that company, however Mr. Brunetto feels the management and reporting issues for IMCO may be bottoming out and there could be some upward potential. With regard to the new companies POWI stock price has shown an upward trend historically and ATA reported a loss for this most recent quarter raising some concern.

Alternative Fuels & Fuel Cells- Brian Fratus

Mr. Fratus feels that the whole fuel cell sector is still highly speculative. He believes that the micro fuel cell group will experience the first breakout commercially. FCEL and PLUG are both struggling for a commercial break through but there is a lot of attention to their space for commercial solutions. Mr. Fratus is positive about EPG because it adds diversification to this segment. Bio diesel is receiving a lot of market attention and support in the financial community. The timing is very good for this company to benefit in the context of fuel supply and pricing issues, this is not a speculative technology play but a commodity market opportunity wrapped-up in legislative initiatives such as the energy act of 2005. The opportunity for real returns with EPG is more immediate.

Company	New Period
BLDP	\$1,637
PLUG	1,638
MDTL	1,638
FCEL	1,638
HYGS	1,638
EPG	2,730

Spotlight

Optimism over solar power incentives tempered by materials and manufacturing constraints

By Gary Clouser

The solar power industry received a big boost from \$3.2 billion governmental incentives in California. The incentives are expected to encourage installation of an aggregate 3,000 MW of solar energy. This is enough power to serve 2.3 million people, 6% of the state's peak demand, and is the equivalent of 2.5 times the worldwide solar power sales in 2004. By comparison, all of the solar power installed in all 50 states today has the capacity of about 400 MW. If successful the incentive program would solidify California's position as the world's third largest solar market behind Japan and Germany. California Gov. Arnold Schwarzenegger has indicated he supports the program and would like renewable energy to account for 20% of California's electricity resources by 2017 — the expiration date of the new solar incentives.

The initial exuberance about the incentives, however, has been tempered by the realization that the impact will not be immediate. Manufacturing facilities are already operating at or near capacity and a key raw material, silicon, is in short supply. This is resulting in increased prices that could hamper market penetration. It will take time for the solar power manufacturers, silicon producers, and the supporting infrastructure to build to meet the new demands. However because of the size of the incentives and the 11-year duration of the incentive plan, capacity expansion is likely. "Of all of the numbers in this plan, it's the 11 number that's most important," said Mark Farber, co-founder and vice president of strategic planning of Evergreen Solar, a PV manufacturer.

The California Incentives generally will
DESI QUARTERLY REPORT - DECEMBER 2006

pay about a third of the costs for installing solar power in homes or businesses. A typically-sized home solar system of about 3 KW costs about \$27,000 to buy and install --- a powerful deterrent to homeowners. But, the new California rebate could lower that cost by about \$7,000, and a federal tax credit, in effect for the next two years, could subtract another \$2,000. While these incentives are large, Brian Fratus, a DEFG analyst, believes that for solar to be successful technical advances and improvement in economic scale are needed to move solar power toward competitiveness. "Even with the California initiatives solar energy will cost about a third more than coal-generated electricity, and up to about a 50% more than power generated from a combined natural gas-coal facility", Brian said. While incentives may nudge the industry forward the goals seem to be aggressively optimistic without these advances and improvement in economics. Externalities and diversity of supply are still the true motivation for solar power. Another fear is that the rising cost of silicon could completely offset any anticipated reductions brought about by higher manufacturing volumes and efficiencies of new facilities. The challenge remains: How do you achieve economies of scale to reduce costs while building the customer base?

Long-term commitments to grow the industry, like California's, will be essential to spur expansion in this capital intensive industry. There is evidence that the incentives are working. Marc Roper, vice president of marketing for the US division of Schott Solar, a privately-held manufacturer, said programs like California prop up the US leg of the global solar market. This reduces risk, increases geographic diversity and increases the involvement of mainstream financial institutions. Roper expects Schott to strongly consider opening a new manufacturing facility somewhere in the NAFTA zone to meet the expected demand for solar in California. Farber said Evergreen Solar will "absolutely" increase capacity as a result of growing market confidence. The company is

presently expanding its manufacturing facilities threefold in Germany, in response to that country's incentives for solar power. Major companies are also getting involved. Honda indicated it will enter the solar cell market in 2007. They will make cells for both the residential and industrial sectors, and its cells will be composed of non-silicon compound materials. BP already has an aggressive solar program and indicated it will spend up to \$8 billion over the next 10 years to develop alternative and renewable energies, including solar. These long-term commitments from solar energy manufacturers have prompted some silicon producers to announce expansion plans and others are expected to follow.

While investment in solar has increased dramatically, it will take time for these investments to impact the market. Jeffrey Bencik, analyst Jefferies & Co., identified Evergreen Solar, Energy Conversion Devices, SunPower Corp., and Solar Integrated Technologies as companies likely to benefit the most from incentive programs like the one in California. However he doesn't expect to see an immediate impact because of the time it takes to build new facilities. And in a report authored by Jesse Pichel and Ming Yang, they indicate that the polysilicon shortage will cap worldwide solar industry growth at about 6% in 2006.

Solar energy follows a long list of fuels that have received subsidies, incentives, or governmental research dollars. The duration and certainty of the incentives will have a positive, if not immediate affect on the solar power industry, and will serve as motivation and security for capital outlays to fund needed infrastructure expansion. However for solar to transition into a viable energy source for the industry it will have to overcome its supply shortages and achieve significant technical and production advances to improve its price point versus other energy sources. Once these are achieved California as well as other parts of the country will further "tilt" toward the sun.

Fundamentals

DESI Companies and Month Ending Prices

Company	Symbol	DESI Weight	Sector weight	30-Sep-05	31-Oct-05	30-Nov-05	30-Dec-05	Quarterly Growth		
Prime Movers				0.1637	1.0000	\$40.11	\$39.52	\$41.60	\$42.40	5.70%
Capstone Turbine Corporation	CPST	0.0077	0.0472	3.55	2.42	3.39	2.99	-15.77%		
Cummins, Inc.	CMI	0.0121	0.0741	87.99	85.37	89	89.73	1.98%		
Ingersoll-Rand	IR	0.1222	0.7462	38.23	37.79	39.63	40.37	5.60%		
Cooper Cameron Corporation	CAM	0.0217	0.1326	36.97	36.87	39.81	41.4	11.98%		
Power Quality & Storage				0.3950	1.0000	\$22.43	\$18.67	\$19.50	\$19.16	-14.57%
Active Power, Inc.	ACPW	0.0113	0.0286	4.13	3.25	3.49	3.85	-6.78%		
American Power Conversion Corp.	APCC	0.3256	0.8243	25.91	21.38	22.41	22	-15.09%		
C and D Technologies	CHP	0.0167	0.0422	9.41	9.13	7.4	7.62	-19.02%		
Beacon Power Corporation	BCON	0.0032	0.0082	2.92	1.71	1.77	1.81	-38.01%		
Power One Inc.	PWER	0.0382	0.0967	5.54	5.68	6.22	6.02	8.66%		
Renewable, Hydrogen & Fuel Cells				0.2199	1.0000	\$16.64	\$12.42	\$12.31	\$14.79	-11.15%
Ballard Power Systems	BLDP	0.0401	0.1825	5.59	4.93	4.47	4.18	-25.22%		
Distributed Energy Systems Corp.	DESC	0.0108	0.0491	8.34	8.03	9.27	7.58	-9.11%		
FuelCell Energy, Inc.	FCEL	0.0352	0.1601	10.97	8.76	8.44	8.47	-22.79%		
Hydrogenics Corporation	HYGS	0.0165	0.0751	3.89	3.06	2.78	3.13	-19.54%		
Plug Power	PLUG	0.0360	0.1636	6.8	5.8	5.13	5.13	-24.56%		
Energy Conversion Devices	ENER	0.0532	0.2420	44.88	30.94	29.35	40.75	-9.20%		
Evergreen Solar, Inc.	ESLR	0.0280	0.1275	9.33	8.25	12.01	10.65	14.15%		
Demand Management, Metering & Controls				0.1612	1.0000	\$32.71	\$31.58	\$32.59	\$29.66	-9.32%
Echelon Corporation	ELON	0.0201	0.1247	9.21	7.75	8.25	7.83	-14.98%		
Intergraph Corporation	INGR	0.0288	0.1788	44.71	48.38	48.02	49.81	11.41%		
Itron, Inc.	ITRI	0.0695	0.4315	45.66	43.46	46.75	40.04	-12.31%		
O2Micro International	OIIM	0.0391	0.2428	15.74	13.1	11.43	10.18	-35.32%		
SatCon Technologies	SATC	0.0036	0.0222	2.07	1.42	1.47	1.5	-27.54%		
Enabling Technologies				0.0602	1.0000	\$6.28	\$5.14	\$4.84	\$4.79	-23.80%
IMPCO Technologies	IMCO	0.0099	0.1641	6	5.19	5.2	5.16	-14.00%		
American Superconductor Corp.	AMSC	0.0183	0.3044	10.34	8.21	8.15	7.87	-23.89%		
Mechanical Technology, Inc.	MKTY	0.0078	0.1296	3.86	3.15	2.86	2.8	-27.46%		
Quantum Fuel Systems Technology	QTWW	0.0189	0.3139	4.1	3.33	2.55	2.68	-34.63%		
UQM Technologies	UQM	0.0053	0.0880	4.12	3.78	3.75	3.87	-6.07%		
DESI				115.38	102.88	106.75	106.39	-7.79%		



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The DESI is a portfolio of the stocks of up to 30 of the leading companies in the industry. These companies are primarily focused on distributed energy and technology solutions and DESI will:

- Build industry awareness
- Focus investors on leading distributed energy and technology stocks
- Provide a framework for developing distributed energy portfolios
- Establish a benchmark for

DESI Charged and Grounded Companies (Q2 2005)

Company	Symbol	Quarterly Growth (%)
Power One Inc.	PWER	29.8
Distributed Energy Systems Corp.	DESC	23.8
Intergraph Corp.	INGR	17.6
Ballard Power Systems	BLDP	50.7
O2Micro International	OIIM	35.2

DESI

The Distributed Energy Stock Index (DESI) is a stock index of publicly-traded DE and energy technology companies created by the Distributed Energy Financial Group, LLC (DEFG) to increase coverage of this important sectors. The DESI provides credible analysis, performance comparisons and benchmarks. DESI coverage is unique in that it provides individual analysis of the companies in five DE sectors as well as team coverage of the prospects and challenges. The DESI Quarterly Report is electronically issued four times a year and available at no charge to investors and interested stakeholders.

OBJECTIVE:

- Build industry awareness and focus investors on leading distributed energy stocks.
- Provide a framework for the development of distributed energy portfolios.
- Offer a measure to compare growth and performance of:
 - Investment in a distributed energy portfolio
 - Specific distributed energy companies
- Establish a benchmark for performance measurement.

DESI ANALYSTS:

Dr. Shalom Flank: Dr. Shalom Flank is currently the Chief Technical Officer at Pareto Energy, a project development firm that provides district energy solutions for our nation's cities in cooperation with the U.S. Conference of Mayors. Dr. Flank is also a principle at Global Works Consulting, a consulting firm specializing in commercializing new energy technologies.

Brian Fratus: Brian Fratus has 19 years of energy sector and infrastructure development, finance and asset management experience with Fortune 500 utility holding companies, independent power organizations and big four management consulting firms both in the U.S. and internationally. Mr. Fratus recently founded CDI, an independent consulting firm focused on transaction advisory services, energy consulting, business and project development, and investment activities.

Jamie Wimberly: Jamie Wimberly is the CEO of the Distributed Energy Financial Group (DEFG). Mr. Wimberly has over 15 years experience in finance and the energy sector, with a special focus on alternative and distributed energy technologies. In addition to DEFG, Mr. Wimberly also serves on the Board of the Center for the Advancement of Energy Markets (CAEM), a think tank which he co-founded.

Joshua Meyer: Joshua Meyer has been working with distributed energy since 1998. Mr. Meyer is an independent consultant and serves on the executive committees of the US Combined Heat and Power Association and the Northeast Combined Heat and Power Initiative.

Thomas Brunetto: Thomas Brunetto is a Managing Director at DEFG and has over 30 years of experience in the energy industry. This experience spans a broad spectrum of activities including business strategy and market development, resource planning and adequacy, demand planning and response, marketing, and rates and regulation.

Sponsor Info



MicroPlanet is a distributed-energy technology company that offers least-cost energy solutions for utilities and customers to promote more reliable power delivery and electrical energy conservation. The Company manufactures a proprietary line of electronic voltage regulators. The Company's shares are publicly listed for trading on the TSX Venture Exchange (TSXV) under the symbol: "MP"

For more information, visit MicroPlanet's web site at:

www.microplanetltd.com

or contact:

info@microplanetltd.com

Distribution Partner



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