

## Raser Technologies, Inc. (RSTG - OTC Bulletin Board)

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Jeff Howlett is a financial analyst who for over 11 years has provided comprehensive research services to companies lacking adequate coverage. Mr. Howlett was previously affiliated with a major Canadian investment firm specializing in Mergers & Acquisitions and has received a B.Sc. in Economics from the Wharton School of the University of Pennsylvania.

New electric motor technology successfully developed & tested. Aggressive Test Demonstration Program now in progress along with licensing model expected to produce rapid sales growth.

Raser is a research and development company focused on developing advanced motor technology for broad applications, including the growing electric hybrid vehicle market. It has developed several innovations in electric motors and controllers that increase torque and power, allowing reduced manufacturing costs and providing enhanced performance. Applications span virtually the entire universe of electric motors, including industry, the military, as well as the automotive sector.

### The Technology

In October, 2003 Raser announced the Symetron™ motor system technology, a breakthrough in motor theory which results in both a simpler design and a dramatic improvement in performance. Testing has shown a dramatic 3 times increase in peak power and torque without compromising efficiency. This means that motors can be much smaller – resulting in very significant cost savings. A high efficiency controller reduces the need for cooling and optimizes power device optimization. No changes to production processes and there is very little in the way of retooling required for commercial implementation.

### Markets

Symetron is a core technology and scalable, so it can be applied to many types and sizes of motors. With roughly 64% of electrical energy in industry used by electric motors, the conventional electric motor market is a multi-billion dollar one. There is also increasing demand and mandates for zero emission vehicles (or failing that, for hybrids). Nearly 60 million vehicles were sold worldwide in 2003. Symetron technology is well-suited for these and other markets.

### Licensing Approach to Commercialization

Following introduction of the the technology in late 2003, management is focused on offering broad, non-exclusive licenses to numerous customers, accessing several markets. Royalties will be based on the value created by the Symetron technology(or the reduced cost). Management has announced that Raser has entered into testing programs with numerous major customers.



### Share Data (\$US):

Recent Price:	\$6.00
52-week Price Range:	\$1.20 - \$7.65
Shares Outstanding (3/23/04):	46.7 million
Fully Diluted Shares (1):	46.7 million

(1) No options or warrants currently.

### Capitalization (\$US):

Market Capitalization:	\$280.2 million
Total Debt (12/31/03):	nil

### Corporate Information:

CEO:	Kraig Higginson
Investor Relations:	801-746-3570
Website:	<a href="http://www.rasertech.com">www.rasertech.com</a>
E-mail:	<a href="mailto:dwest@rasertech.com">dwest@rasertech.com</a>

## WE BELIEVE THAT RASER OFFERS INVESTORS A UNIQUE OPPORTUNITY WITH LARGE SCALE POTENTIAL

Our overall observations are as follows:

- **Technology.** Raser has developed improvements to conventional electric motors that have the potential to significantly affect the cost – benefit ratio to manufacturers and end users.
- **Market.** The technology has broad application in many industries and is scalable, facilitating application in both small and large motors.
- **Adoption.** Use of the technology by manufacturers does not require alterations in the production process or significant retooling.
- **Management.** Key management of Raser have proven track records of success.
- **Financial.** Management has adopted a licensing approach rather than producing its own products, creating a win-win environment. The value-added approach, whereby Raser will capture a portion of the additional value created (or cost savings), combined with the large size of available markets, offers Raser **virtually unlimited sales potential**.

*We believe that the elements are being put in place for a highly successful rollout and a very interesting 2004/05 for Raser shareholders. Adoption by major industry participants could have the potential for a snowball effect.*

## THE COMPANY

### Technology Breakthroughs Through 2003

Following a series of transactions and Plan of Reorganization, in **October, 2003** the presently constituted Raser acquired all rights, contracts, assets and liabilities, including the U.S. Patents applications, relating to the *Symetron™* resonant motor system technology. Beginning roughly in **late 2001**, efforts by the inventor (and now Chief Scientist), Jack Kerlin, centered on researching and applying advanced mathematical theory and seemingly unrelated principles of physics to the area of electro-magnetics. A breakthrough was achieved in motor theory whereby motor performance was improved dramatically. A nonprovisional patent application for the resonant motor system was filed on **October 18, 2002** and a provisional application for the electromagnetic motor was filed on **October 3, 2003**. Raser has continued to file additional patents since. In **November, 2003**, Raser began trading on the OTC Bulletin Board. Raser is continuing with its R&D efforts to further enhance the technology and its many applications.

#### Company developments can be summarized as follows:

- Through 2002, technology development.
- 2003 – Extensive testing, market introduction.
- 2004+ – Market development (licensing), further R&D.

### Successful Testing Follows

Raser moved quickly into a testing phase with several applications, as follows.

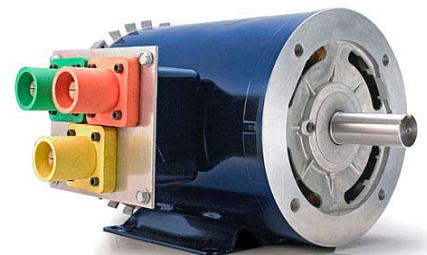
- **Standard Industrial Motor.** Raser first enhanced a standard industrial NEMA 184T frame motor, a very common, versatile, and representative motor size. In independent testing in mid-*April, 2003*, this motor's performance was improved with **3 times the rated torque and horsepower**, increasing the horsepower from 5 hp to 15 hp at the same rpm while maintaining acceptable efficiency.
- **Electric Hybrid Snowmobile.** Raser converted a conventional snowmobile to a hybrid electric snowmobile powered by a Symetron Enhanced™ electric motor.
- **Electric Utility Truck.** In a test demonstration, Raser replaced the factory electric motor in a utility truck and improved the performance with a **3 times improvement in torque and horsepower.**
- **Pancake Motors.** Many applications, including hybrid vehicles, sometimes require flat or integrated style motors. Raser began research and development on a pancake series of motors designed to produce the high torque needed by hybrid vehicles without using expensive permanent magnet materials. This type of motor also has possible application in new hybrid vehicles that require integrated starter/generators.
- **Battery-powered light utility truck.** At the *National Clean Cities Vehicles show* in Ft. Lauderdale, Fla., on May 3-5, 2004, Raser unveiled two electric vehicles currently in its test demonstration program – a battery powered light utility truck and a Polaris snowmobile. Selling at under \$12,000 the electric truck is ideal for maintenance crews, fleets, campuses, and parks. All-electric vehicles can operate more economically in a fleet by utilizing low-cost electric power priced as low as 24 cents per equivalent gallon in some states.
- Symetron(TM) technology is also being applied to larger motors for rapid transit buses, delivery trucks, and other fleet vehicles.

The Symetron™ technology was introduced at the EV-20 show in Long Beach, CA in November of 2003.

It is worth mentioning that after the spectacular improvements in motor technology were announced, considerable skepticism ensued. This led to demonstrate and validate several applications of the technology in dynamometer testing at independent motor labs. This included testing at *Advanced Energy* in North Carolina (October, 2003), the only fully accredited independent lab not affiliated with a motor manufacturer. Previous results were verified.

### Now Commercializing Symetron™

**Raser has adopted a licensing strategy.** Accordingly, following the introduction of the technology at Long Beach in October, 2003, management instituted a Test Demonstration Program. This includes signing a non-disclosure agreement, conducting a "paper test", followed by installation testing and practical testing. In a recent shareholder letter dated March 30, 2003, management announced that Raser has entered into testing programs with numerous major customers including many of the world's largest auto-makers, electric motor manufacturers, and system integrators.



The Nema 184T version

### THE SYMETRON™ TECHNOLOGY

**The Foundation**

Raser has achieved a breakthrough in electric motor design by applying advanced physics and mathematics to electromagnetic devices, previously only considered applicable to particle physics. This has yielded a more accurate understanding of the properties of the electric motor, and better describes the inter-relationship between magnetic and mechanical energy. ***This has resulted in a number of unique construction features*** that facilitate increased torque, efficiency, and improved heat dissipation under high demand conditions where conventional motors would fail. This innovations can be summarized as follows:

- Proprietary rotor and stator design.
- Means for increased magnetic energy storage.
- Flexible cooling capacity.
- Proprietary control strategy.

Symetron™ is a **core technology** and **scalable**. Accordingly, it can be applied to many types and sizes of motors.

The new design of the motor also allowed for a **new, simplified, and smaller controller technology**. The unit uses a solid-state, variable frequency technology that operates to minimize losses and reduce costs.

Some modifications in standard motor construction procedures are required to incorporate Symetron™ technology. However - most of the existing manufacturing practices remain intact so that ***the cost of retooling for full implementation of the new design should be minimal.***

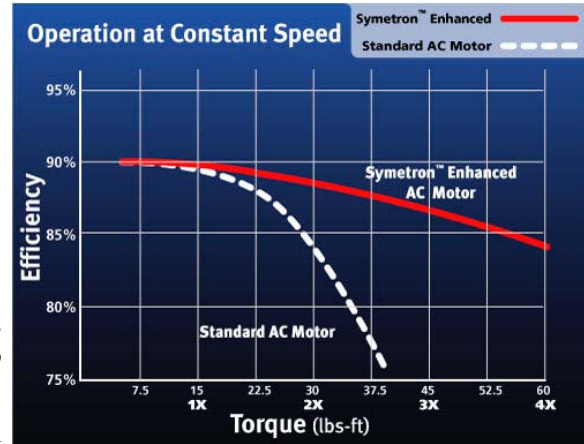
**The Result**

***In a typical motor, energy efficiency typically falls off with increasing torque.*** This, combined with excessive heat generation are usually the primary restrictions to higher torque production. Because this is not the case with Symetron™ technology, there are several critical implications:

- The Symetron™ motor and controller technology ***allows a smaller, lighter motor to deliver the same power and torque.*** This means that the motor can be smaller in size than a conventional motor – and because motors are essentially commodities which are priced by size, the Symetron™ motor may cost less.
- This also means that for a given size engine ***peak power output can be 3 times higher with virtually no loss of efficiency*** (this obviously has serious implications for Electrical Vehicle – EV – applications).
- Due to the simplicity of design, manufacturing costs are reduced (controller).
- Application of the technology requires only a few simple changes to the design of conventional motors
- The high efficiency controller optimizes power device utilization.

**Motor Features**

- 3 times greater torque than conventional motors.
- High power density.
- High efficiency at full load.
- Stepless variable speed.
- High speed operation.
- Zero emissions.
- Low-cost controller.
- Full starting torque.



**Note:** 1) the efficiency of a standard motor drops off after exceeding its rated torque limit, 2) the Symetron™ motor maintains efficiency under high load. This has major implications for market applications (such as for automobiles).

**Symetron™ technology essentially enables an electric motor to perform at its theoretical limit set by laws of physics.**

COMPARISON	Nema 184T	Symetron™ Enhanced Nema 184T Frame
Torque Max	40 Nm	190 Nm
Torque Continuous	20 Nm	60 Nm
Power Max	40 Kw	143 kW
Power Continuous @7200 RPM	15 kW	45 kW
Efficiency Peak	88.9%	93.4%
Motor Weight	45 Kg	45.5 Kg
Power Density (kW/kg continuous)	0.33	1.00
Cooling	Air	Forced Air
Motor Type	AC Induction	AC + Symetron™

### CONVENTIONAL ELECTRIC MOTOR MARKETS

Electric motor technology has remained largely unchanged for over 100 years and traditional electric motor markets are huge in scope. Just about every industry and manufacturing process one could imagine uses electric motors. Six industries consume three-quarters of all industrial energy: ❶ lumber and paper; ❷ chemicals; ❸ petroleum refining; ❹ primary metals, ❺ food processing; and ❻ stone, clay, and glass. Throughout the home, electric motors are driving basically anything that moves, including appliances, heating, ventilation, and air conditioning (HVAC), and other applications.

Markets for industrial products and services are diverse, global and highly price competitive. Efficiency is an important criterion for selection by customers, because electric motors account for nearly two-thirds of the electricity consumed by industrial plants. Industrial markets are undergoing significant structural changes reflecting, among other factors, increased international competition and pressures to modernize productive capacity. Manufacturing companies generally obtain their largest savings from improved efficiency of motors (*motors account for 54% of electricity use in manufacturing*) and from improved steam and hot-water systems.

Because Symetron technology has been shown to offer high power and efficiency, it has the potential to deliver performance gains that may translate into savings in reduced capital and operating costs for industry. Many fixed motor applications could benefit from performance and efficiency improvements.

As shown below, electric motor sales is a multi-billion dollar industry.

**Roughly 64% of electrical energy in industry is consumed by electric motors. Potential industrial applications include:**

- Variable Speed Applications
- Fans, Pumps & Blowers
- Fluid Handling Applications
- HVAC
- Machine Tools
- Metal Fabrication and Paper Mills
- Servo Drives
- Drive Motors\*
- Printing Presses
- Conveyor belts

**Keys to Consider:**

- Competition among manufacturers is fierce.
- Efficiency is a critical consideration by users.

**The Result:**

- A technology that has the capability to dramatically cut capital costs and / or improve efficiency has the potential for wide adoption and virtually unlimited revenue potential.

Top 3 U.S. Electric Motor Producers		
Company	Motor Sales	Comments
<b>Emerson Electric</b>	• Several billion	• Largest electric motor manufacturer in the world (well over <b>100 million motors produced</b> per year). • Operates in several divisions, with electric motors representing a part of several (i.e. Industrial motors represent 11% and Variable speed drives representing 9% of of \$2.6 billion "Industrial Automation" segment, Commercial motors representing 26% of Appliance & Tools segment, DC Power Systems representing 14% of Electronics & Telecommunications segment, etc. etc.)
<b>General Electric</b>	• Several billion	• Same as Emerson (i.e. electric motors and related products and services part of \$5.5 billion "Industrial Systems" division, electric motors may be sold in several other divisions).
<b>A.O. Smith</b>	• \$824.6 million	• Manufactured approximately <b>39 million electric motors</b> in 2003 (HVAC and refrigeration market represents 60% of sales).

Other Significant U.S. Producers (all several hundred million in sales)		
Company	Motor Sales	Comments
<b>Tecumseh Products</b>	• Several hundred million	• Significant player in compressor market, acquisition of FASCO Motors, a significant player (\$420 million) in the \$10.4 billion fractional horsepower market.
<b>Rockwell Automation</b>	• \$705 million	• Sales represents total "Power Systems" division, which includes the "Industrial Motor and Drive Business" (industrial and engineered motors and standard AC & DC drives) as well as the "Mechanical Power Transmission Business"

Other Significant U.S. Producers (all several hundred million in sales)		
<b>Baldor Electric</b>	• \$561 million	• Operates in only 1 industry segment – design, manufacture, and sale of electric motors, drives, generators, and related products. Sales of industrial electric motors represented about 78% of sales.
<b>Regal-Beloit</b>	• \$438 million	• Sales represent "Electrical Group" sales, which includes amounts related to manufacturing a full line of AC and DC industrial electric motors, electric power generation components and controls, and electrical connecting devices.
<b>Kinetek</b>	• \$201 million	•

The list above includes U.S. companies only – international competitors are also very large, including European firms as Siemens and ABB and Asia firms such as Hitachi and Mitsubishi, all of which enjoy multi-billion dollars in electric motor sales per year. There are also numerous smaller companies operating worldwide.

**SPECIFIC APPLICATION TO AUTOMOTIVE MARKETS**

Beginning roughly in the early 1990's, the automobile industry has been a hotbed of activity in the development of new alternatives for motors. For some time, there has been increasing pressures and pent up/latent demand for new / revolutionary technologies that eliminate and / or reduce emissions, along with the use of fossil fuels.

**Early Efforts for Zero-Emission Vehicles (ZEV)**

**Early mandates for zero emission vehicles (ZEV).** Since 1990, California has been promulgating requirements for manufacturers to produce and deliver for sale ZEVs, which produce no emissions of regulated pollutants. However, this normally meant use of battery-powered vehicles that had narrow consumer appeal due to their limited range, reduced functionality, and high cost.

**Change in Emphasis.** As the information right indicates, it has proven to be extremely difficult for the auto manufacturers to economically produce zero-emission vehicles and the industry tended to shift focus to what is possible to produce and sell in today's marketplace – which is hybrid vehicles (that use electric motors). However, we believe that there is a tremendous push toward technologies that, at the end of the day, reduce emissions and *if a technology were available that could bring the industry more into conformity with a zero-emission mandates, it would be taken very seriously indeed.*

**The Timeline.**

- **Early 1990s.** Initially, the mandate was to produce 2% ZEV vehicles in 1998, rising to 10% in 1998.
- **1996.** The 1998 requirement was dropped but the 2003 requirement stood in modified form. Manufacturers voluntarily instituted ZEV demo programs.
- **2001.** Changes to the mandates were proposed as a result of litigation by manufacturers.
- **2003.** New amendments were adopted that shifted the emphasis away from ZEV to advanced technology vehicles (i.e. hybrid electric vehicles or compressed natural gas vehicles) with extremely low - but not zero - tailpipe emissions. Credit was given for "partial zero emission vehicles). The rules also called for the production of zero-emission fuel cell vehicles over the longer term.

California clearly sets the standard and its programs are increasingly important considering that many states have ultimately followed its' 's lead in this area (i.e. NY, MA, VT, ME, NJ).

**Additional Hybrid Electric Vehicle (HEV) Efforts**

The U.S. Hybrid Electric Vehicle (HEV) Program officially began in **1993** as a five-year cost-shared partnership between the U.S. Department of Energy (DOE) and "Big Three" American auto manufacturers: GM, Ford, and DaimlerChrysler. They committed to produce production-feasible HEV propulsion systems by **1998**, first-generation prototypes by **2000**, and market-ready HEVs by **2003**. The overall goal of the program was to develop production feasible HEVs that achieved twice the fuel economy of similar gasoline vehicles and had comparable performance, safety, and costs. In 1999, the technical work of the Big Three subcontracts concluded. All three automakers delivered the HEVs as their final contract requirement.

NREL is continuing to help the auto industry with HEV development in a variety of ways. NREL provides technical expertise in the areas of battery thermal management, vehicle simulation/analysis, and vehicle auxiliary load reduction.

Auto Manufacturer HEV Rollouts	
Company	Rollout / Comments
Toyota	● Prius – sold successfully in Japan since late <b>1998</b> . Toyota is now the world's biggest seller of hybrid vehicles.
Honda	● Insight – the first HEV to be available for public purchase in the U.S. ( <b>1999</b> ). ● Civic -
Ford	● <b>2004</b> . Escape to go on sale.
GM	● <b>2004</b> . In May, delivery of 235 diesel electric hybrid transit buses to King County, WA. Silverado and Sierra rollouts (initially to fleets). ● <b>2005</b> . Saturn Vue (with Super Ultra Low Emissions Vehicle rating) ● <b>2006</b> . Equinox SUV. ● <b>2007</b> . Tahoe and Yukon SUVs (with displacement on demand). Also a hybrid system for the Malibu.
Daimler Chrysler	● <b>2005</b> . Ram pickup ● <b>2006</b> . Mercedes S-class.

As the HEV program progressed, its goals began to merge with the goals of the *Partnership for a New Generation of Vehicles (PNGV)*. The President's budget proposal for FY 2003 directed that PNGV be refocused and transferred to DOE as the *FreedomCAR* program. DOE focuses on long-term, high-risk, pre-competitive research and development in fuel cells and hydrogen infrastructures and technologies. As with the HEV program, all the automakers are highly active with this program (i.e. GM with the Precept / EV1 and Ford with Prodigy).

There are a multitude of additional efforts, including the California Fuel Cell Partnership, the Sustainable Mobility Project. There are several car manufacturers cooperate in a number of ways as well (i.e. Toyota has partnerships with several others, including GM, PSA Peugeot, Nissan, and Exxon).

**Raser's Symetron motor overcomes several problems associated with permanent magnet motors, now used in hybrid vehicles:**

- Permanent magnet motors are more expensive.
- They have an inherent drawback in that heat can cause them to demagnetize.
- They are also controller related – they cannot be "turned off" so controller technology is vitally important and complex.

**Bottom line, literally billions of dollars are being spent on systems that have potential to transform the automotive industry and such advancements clearly represent a major competitive advantage in the marketplace.**

**Financial Potential**

Raser has taken an "value-added" licensing approach in the vehicle market. With the Symetron engine, with its smaller, simpler design, it is anticipated that savings can be gained in the initial capital cost of the engine. As shown right, these savings might be expected to be in the hundreds of dollars.

Based on widely ranging assumptions as to the ultimate number of vehicles sold annually which might have an electrical motor component (i.e. 10%), and the amount of that market subset (i.e. 10%, 25%), we see that Raser could potentially produce revenues of tens or hundreds of millions of dollars.

Given the fact that with the Symetron motor auto manufacturers will have virtually insignificant need for retooling and can use the same manufacturing process as is currently used, we believe that there is a compelling case to be made for a very meaningful rate of adoption.

Raser Technologies Inc. Illustrative Licensing Scenario – Hybrid Auto				
Assumed Current Price of Motor		500	750	1,000
Cost of Raser Solution	0	333	500	667
"Value Added" Difference		167	250	333
Amount Captured by Raser	25.00%	\$42	\$63	\$83
Per Motor	50.00%	\$83	\$125	\$167
Vehicles Sold Worldwide (000's)	58,579			
Penetration – using electric motors	10.00%	5,858	5,858	5,858
Illustrative Shares of Market – Raser				
Low	10.00%	586	586	586
High	25.00%	1,464	1,464	1,464
Potential Revenue (000's)				
Low (1)		\$24,408	\$36,612	\$48,816
High (2)		\$122,040	\$183,059	\$244,079
(1) Based on 25% "value-added" captured per motor, 1% market share.				
(2) Based on 50% "value-added" captured per motor, 2.5% market share.				

**Why Raser's Symetron technology could accelerate purchase of hybrid electric vehicles:**

- *The comparative cost per equivalent gallon of fuel for an electric vehicle powered by a Symetron enhanced motor is just \$0.23 per equivalent gallon compared to \$1.50 or more per gallon for gasoline vehicles.*
- *The high torque and high power of a Symetron™ enhanced motor combined with the economy of driving on low-cost electric fuel will.*

**RASER'S MARKETING STRATEGY****Announcement  
of Technology  
Follows  
Testing**

As noted earlier, Raser has demonstrated and validated several applications of its technology in dynamometer testing at independent motor labs. Subsequently, Raser announced its breakthrough Symetron electric motor technology at the *EVS 20 Electric Vehicle Symposium* recently in Long Beach California (<http://www.evs20.org>).

**Licensing  
To Full  
Spectrum of  
Users**

Management has embarked in the full commercialization of the Symetron technology, pursuing a licensing strategy. Raser's strategy is to offer broad, non-exclusive licenses of its technology to numerous customers serving many markets. It anticipates a relatively large, diverse number of customers such as motor manufacturers around the world, domestic and foreign auto makers, military, government, aerospace and system engineering firms.

Through its *Test Demonstration Program*, Raser will allow system integrators and motor manufacturers to closely inspect the performance of test motors and build demo or prototype motors necessary for pre manufacturing & licensing.

Thus, starting in the second quarter of 2004, management expected to increase our engineering and marketing manpower to support increased technology testing, customer engineering and support and marketing. In addition, as customer testing requirements increase, management anticipates capital expenditures of approximately \$300,000 in the third quarter of 2004 to fund testing facility enhancements and design software.

In March, 2004, Raser entered into an agreement with the *Monitor Group* ([www.monitor.com/cgi-bin/iowa/about/history.html](http://www.monitor.com/cgi-bin/iowa/about/history.html)), a deployment strategy group. Monitor is assisting the company with technology deployment and licensing support. Monitor is recognized as one of the world leaders in business strategy consulting and development with offices in 29 cities worldwide. The services being provided include ❶ an analysis of the existing electric motor manufacturer market; ❷ an analysis of the likely development of the hybrid-vehicle market; ❸ an evaluation of the electric motor value chain from technology providers such as the Company to engine manufacturers, original equipment makers, consumers and eventually through to society; ❹ an evaluation of the value proposition of the Company's Symetron technology; and ❺ development of a sequenced strategy to maximize the value captured by stockholders.

Raser's Test Demonstration Program is the key focus of Raser in 2004. The test demonstration program has four main phases.

- Paper Test
- Installation
- Dynamometer Test
- Analysis & Review
- Field-testing by the manufacturer in working applications.

For additional details, see [www.rasertech.com/test\\_demonstration.html](http://www.rasertech.com/test_demonstration.html)

**INTELLECTUAL PROPERTY RIGHTS**

To protect the intellectual property rights of the new technology, the Company teamed up with Burns, Doan, Swecker & Mathis, LLP, one of the nation's leading IP firms and is used by some of Silicon Valley's largest high tech companies. To determine if there were any existing patents applying to this type of electric motor technology, an exhaustive patent search was initiated. The search determined that Raser's technology appears to be new and proprietary. Initial patents were filed in October of 2002 with the U.S. Patent and Trademark Office. Additional patents continue to be filed around the core technology to strengthen the company's position and to protect continuing advancements.

**RISK FACTORS**

Although we are of the view that Raser represents a very exciting technology company with bright prospects, we caution readers that there are definite risks involved. A list of the potential risk factors that may affect the Company's prospects may be found in the Company's most recent 8K filing dated 14 October, 2003 or Form 10-KSB for the year ended December 31, 2003 and we encourage readers to review these

## KEY MANAGEMENT

Raser has an excellent team of professionals with extensive track records of success.

**Kraig Higginson, CEO.** Mr. Higginson founded American Telemedia Network, Inc., a publicly-traded corporation that developed a nationwide satellite network of data and audio-visual programming. He served as President and CEO of Telemedia Network from 1984 through 1988. From 1988 through 2002, Mr. Higginson worked as a business consultant through Lighthouse Associates, an entity that he controls.

**John Ritter, President.** Mr. Ritter was Senior VP of CFO of Alcoa Industrial Components, a unit of Alcoa that develops, manufactures and provides support for components used in the aerospace, power generation, automotive and industrial markets. From 1996 through 2000, he was the Senior VP and CFO for Howmet Corporation. Mr. Ritter served as VP, Finance and Contracts, of AlliedSignal Government Electronics from 1994 to 1996, and as VP, Finance and Administration, of Norden Systems, a subsidiary of United Technologies Corporation, from 1991 to 1994. He holds B.S. and M.B.A. degrees from Ohio University and, as a Sloan Fellow, an M.S. from the Massachusetts Institute of Technology.

**Timothy D. Fehr, CTO.** During more than 30 years with the Boeing Co., and more than 18 years as business unit vice president, Mr. Fehr led several thousand engineers, managers and other professionals in the development, manufacture and deployment of numerous engineering, mechanical, hydraulic and electrical systems for both commercial and military applications. Mr. Fehr holds undergraduate and graduate science degrees in electrical engineering. He also holds an M.S. degree as a Sloan Fellow from the Massachusetts Institute of Technology.

## CONCLUSION

We have observed the following:

- **The Technology.** Raser has developed improvements to conventional electric motors that have the potential to significantly affect the cost – benefit ratio to manufacturers and end users.
- **The Market.** This technology has broad application in many industries and is scalable, facilitating application in both small and large motors.
- **Adoption.** Use of the technology by manufacturers does not require alterations in the production process or significant retooling.
- **Financial.** Management has adopted a licensing approach rather than producing its own products, which creates a win-win environment. The value-added approach, whereby Raser will capture a portion of the additional value created (or cost savings) offers Raser considerable upside.

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***We believe that the elements are being put in place for a highly successful rollout and a very interesting 2004/05 for Raser shareholders. Adoption by major industry participants could have the potential for a snowball effect.***

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