

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

ENOVA SYSTEMS INC
Form S-1/A
May 21, 2002

As filed with the Securities and Exchange Commission on May 21, 2002
Registration Statement No. 333-85308
=====

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 3
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ENOVA SYSTEMS, INC.
(Exact name of Registrant as specified in its charter)

California

(State or Other Jurisdiction of
Incorporation or Organization)

3711

(Primary Standard Industrial
Classification Code Number)

95-3056150
(I.R.S. Employer
Identification Number)

19850 South Magellan Drive
Torrance, California 90502
(310) 527-2800
(Address, Including Zip Code, and Telephone Number
Including Area Code, of Registrant's Principal Executive Offices)

Carl D. Perry
Chief Executive Officer
Enova Systems, Inc.
19850 South Magellan Drive
Torrance, California 90502
(310) 527-2800
(Name, Address, Including Zip Code, and Telephone Number
Including Area Code, of Agent for Service)

Copies to:
Donald C. Reinke, Esq.
Kay F. Rubin, Esq.
Crosby, Heafey, Roach & May
1999 Harrison Street, Suite 2200
Oakland, California 94612
(510) 763-2000

Approximate date of commencement of proposed sale to the public: As soon as
practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

delayed or continuous basis pursuant under Rule 415 of the Securities Act of 1933, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities To Be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price
Common Stock, no par value	6,200,000	\$.15	\$ 930,000

(1) Includes an indeterminate number of additional shares of common stock as may from time to time become issuable by reason of stock splits, stock dividends and other similar transactions, which shares are registered hereunder pursuant to Rule 416 under the Securities Act.

(2) The price of \$0.15 per share, which was the average of the bid and asked prices for the common stock on May 17, 2002, is set forth solely for the purpose of calculating the registration fee in accordance with Rule 457(c) of the Securities Act.

(3) Previously paid.

=====

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 21, 2002

Prospectus

6,200,000 Shares
Common Stock

This is a public offering of up to 6,200,000 shares of common stock of Enova Systems, Inc. and an indeterminate number of shares that may become available by reason of stock splits, stock dividends and other similar transactions. All of these shares are being offered by Fontal International, Ltd. We will not receive any of the proceeds from the sale of shares. Fontal may sell the shares offered by this prospectus from time to time in the national over-the-counter market at their prevailing prices, or in negotiated transactions.

Our common stock is traded on the National Association of Securities Dealers, Inc. Electronic Bulletin Board ("OTC Bulletin Board") under the symbol "ENVA". On May 17, 2002, the OTC Bulletin Board reported that the bid price per share was \$0.15 and the asked price per share was \$0.15.

Investing in the common stock involves risks.
See "Risk Factors" beginning on page 7.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares of common stock offered by this prospectus have not been registered under the blue sky or securities laws of any jurisdiction, and any broker or dealer should assure itself of the existence of an exemption from registration or the effect of such registration in connection with the offer and sale of such shares.

The date of this prospectus is May 21, 2002

-1-

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary is not complete and does not contain all the information you should

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

consider before buying shares in this offering. You should read the entire prospectus carefully, including the risk factors and consolidated financial statements and related notes appearing elsewhere in this prospectus. The prospectus contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those described under "Risk Factors" and elsewhere in this prospectus. See "Cautionary Note on Forward-Looking Statements."

Our Company

Enova Systems believes it is a leader in the development and production of commercial digital power management systems. Power management systems control and monitor electric power in an automotive or commercial application such as an automobile or a stand-alone power generator. Our business activities focus on the development of electric and hybrid electric drive systems and related components, fuel cell power management systems for both mobile and stationary power applications, vehicle systems integration and the performance of various engineering contracts for government and commercial enterprises. Drive systems are comprised of an electric motor, an electronics control unit and a gear unit which power an electric vehicle. Hybrid systems, which are similar to pure electric drive systems, contain an internal combustion engine in addition to the electric motor, eliminating outside recharging of the battery system. A fuel cell based system is similar to a hybrid system except that instead of an internal combustion engine, a fuel cell is utilized as the power source. A fuel cell is a system which combines hydrogen and oxygen in a chemical process to produce electricity.

For the quarter ended March 31, 2002, our unaudited financial statements reflect revenues of \$941,000. Our net loss from operations for the three months ended March 31, 2002 was \$704,000. For the year ended December 31, 2001, our audited financial statements reflect revenues of \$3,780,000. Our net loss from operations was \$3,782,000.

We are now building, under contract with global vehicle and technology companies, efficient, robust, cost effective digital power processing and energy management enabling technologies for electric, hybrid electric and fuel cell powered vehicles. These power management technologies are now being applied to commercialization of fuel cell power generation for stationary non-automotive applications. A stationary application would be similar to a gas-powered generator and would utilize a fuel cell or a microturbine generator as its power source to provide electricity in remote locations or where back-up or standby power is a requirement.

Our development and production program with Ballard Power, formerly Ecostar Electric Drive Systems, for low voltage electric drive system components for use in Ford's Global Th!nk City is progressing as planned. Ford has announced that an all-electric vehicle is scheduled to be introduced in the 2nd half of 2002 for markets in North America. We are designing and manufacturing the electronics for the drive system as well as certain auxiliary components. The final prototype systems are currently undergoing pre-production testing and validation in the Ford Th!nk vehicle. We anticipate that we will begin to deliver production systems to Ballard in

-2-

August 2002. The low voltage inverter for the drive system will be priced around \$2,000 per unit and will be delivered to Ballard based on their projected annual

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

requirements.

We continue to expand our alliances with Hyundai, Ford, other Original Equipment Manufacturers and Tier-One suppliers for sales of its automotive products. We offer our modular drive systems to Original Equipment Manufacturers and other customers. These suppliers are described in detail below and also in the Management's Discussion and Analysis section of this prospectus. Our drive systems have been successfully installed and operated in various passenger vehicles and buses operating in North America, Europe and Asia.

We have successfully integrated our newest hybrid electric Panther(TM) 120kW drive system (utilizing a microturbine produced by Capstone Microturbine Corporation as its power source) into vehicles manufactured by Wrights Environment, a division of Wrights Bus, one of the largest low-floor bus manufacturers in the United Kingdom. This is the initial delivery to Wrights as part of our agreement to manufacture and integrate pure electric and hybrid electric drive systems into Wrights' low floor, mid-size buses for sale in the United Kingdom and the European Continent. We have additionally delivered a pure electric Panther(TM) 120kW drive system to Wrights for integration into their Crusader II bus. The microturbine functions as a power source in this hybrid drive system similar to an internal combustion gas or diesel engine.

We have also delivered seventeen 120kW hybrid drive systems to Eco Power Technology in Italy along with three 40kW Fast Charger system. Eco Power is an integrator of medium size transit buses for the European shuttle bus market with key contacts in Rome and Genoa. Eco Power is integrating our systems into its midsize shuttle buses and we anticipate that they will purchase twenty to thirty additional systems during 2002. We can make no assurance that Eco Power will actually purchase any additional systems.

Our stationary power programs continue to attract new potential partners and customers from both fuel cell manufacturers and petroleum companies. It is management's belief that utilizing our power management systems for stationary applications for fuel cells will open new markets for our company. We are currently developing applications for our products in the telecommunications and distributed generation markets. Discussions are progressing well and we anticipate an initial development contract within the first half of 2002, although we can make no assurance that a development contract will materialize during this time period or at all.

Our company continues to attract new development and integration contracts with the U. S. Government's Department of Transportation, or "DOT". Enova, Hyundai Motor Company and the State of Hawaii introduced 15 Hyundai Santa Fe electric vehicles in Honolulu, Hawaii for test and evaluation prior to their entry into the U.S. markets. This program will utilize Hawaii's rapid charging stations, manufactured by AeroVironment, now being installed.

Additionally, in conjunction with the DOT and the State of Hawaii, we are integrating our drive systems into several vehicles. We have already completed the manufacture and integration of our Panther(TM) 120kW drive system into a trolley owned by E Noa Corporation for evaluation in the Hawaii tourist market. E Noa operates in the Hawaii tourist industry, providing scenic transportation services to the islands. We will also be upgrading eight

-3-

Chevrolet S-10 trucks owned by the City of Honolulu to our Panther(TM) 60kW drive system, including our BCU II battery care unit which will incorporate fast-charge capability for these vehicles. In addition, we are converting an Eldorado 30-foot bus utilizing our Panther(TM) 120kW drive system for the Hickam

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Air Force base in Honolulu. All of these programs are funded in conjunction with the Hawaii Electric Vehicle Development Project, the DOT and the State of Hawaii.

Our contract with the DOT to design and test a three-car tram utilizing the Panther(TM) 120kW drive system is nearing completion. This tram, capable of carrying 100 passengers, was delivered in January 2002 to the Honolulu International Airport for test and evaluation. If successful, we intend to market this tram system to international markets for application to other airports, national and recreational parks and other high capacity transit applications.

The development of our 240kW drive system continues to progress. We are working in conjunction with other motor and gear manufacturers to develop a robust, efficient and powerful drive system for heavy-duty applications including transit buses, heavy-duty trucks and other applications.

We have had many technology advances with Hyundai Motor Company of Korea, the world's seventh largest automobile manufacturer, with engineering contracts to design, develop and test electric and hybrid electric drive systems and related products. These advances include the development of a parallel and series hybrid drive system for automobiles and medium duty truck and buses as well as power management systems for vehicle applications. A hybrid drive system utilizes both an electric motor and an internal combustion engine to maximize performance and fuel efficiency while reducing emissions. Earlier developments included our 60kW all electric drive system and our BCU II battery care unit which monitors and reports on up to 28 automotive batteries in a pack. Having successfully completed our hybrid drive system and fuel cell electric vehicle program, we are working with Hyundai to earn the production contract for their upcoming parallel hybrid drive system program. Hyundai has also produced four fuel cell driven sports utility vehicles for test and evaluation utilizing our Panther(TM) 90kW drive systems.

The industries and markets in which we compete are in their early stages, and we have not yet been able to achieve profitability in these areas, although we have established several important business alliances. We believe these alliances will enable us to gain market penetration which will allow us to become profitable in the future. In the past, the nature of our operations has been primarily research and development. We are now concentrating on production and sales, which we anticipate will increase our profitability. We can make no assurance that our efforts to increase sales or become profitable will be successful.

Our principal executive offices are located at 19850 South Magellan Drive, Torrance, California, 90502, and our telephone number is (310) 527-2800.

-4-

The Offering

Common stock offered by Fontal International, Ltd.	6,200,000 shares
-------------------------------------------------------	------------------

Securities to be outstanding after

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

this offering (1): 302,732,000 shares of common stock

2,844,336 shares of Series A
Convertible Preferred Stock
(convertible into an aggregate of
2,844,336 shares of common stock)
("Series A Stock")

1,217,196 shares of Series B
Convertible Preferred Stock
(convertible into an aggregate of
2,434,392 shares of common
stock) ("Series B Stock")

Voting Rights:

Common Stock: 302,732,000 votes
Series A Stock: 2,844,336 votes
Series B Stock: 2,434,392 votes

Use of proceeds from this offering:

We will not receive any of the proceeds from the shares of common stock sold by Fontal. See "Selling Shareholder".

OTC Bulletin Board symbol:

"ENVA"

(1) Securities outstanding on May 17, 2002. Excludes (A) 30,544,702 shares of common stock issuable upon exercise of outstanding options granted under our stock option plans plus an additional 19,455,298 shares reserved for issuance under our stock option plans, and (B) 15,000,000 shares issuable upon exercise of outstanding warrants.

-5-

Summary Financial Data

As of and (in thousands, except per share data)	For the Quarter ended March 31,	For the Year ended December 31,		Five Months ended Dec 31
	2002	2001	2000	1999
	-----	-----	-----	-----
NET SALES	\$ 941	\$ 3,780	\$ 2,883	\$ 629
COST OF SALES	702	2,783	2,013	377
GROSS MARGIN	239	997	870	252
OTHER COSTS AND EXPENSES				
Research and Development	275	879	626	262
Selling, general and administrative	615	2,894	1,999	796
Interest and financing fees	55	113	174	724

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Other expense (income)	(7)	(7)	6	
Acquisition of research and Development				
Gain on Warranty Reevaluations				
Legal Settlements		900	755	125
Total other costs and expenses	943	4,779	2,880	1,427
LOSS FROM CONTINUING OPERATIONS	(704)	(3,782)	(2,010)	(1,175)
GAIN ON DEBT RESTRUCTURING	0	354	1,551	214
NET LOSS	\$ (704)	\$ (3,428)	\$ (459)	\$ (961)
PER COMMON SHARE:				
Loss from continuing operations	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)
Gain on debt restructuring			\$ 0.01	
Net loss per common share	\$ (0.01)	\$ (0.01)	\$ 0.00	\$ (0.01)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING	302,532	275,189	235,199	251,994
Total Assets	\$ 4,121	\$ 4,340	\$ 3,094	\$ 2,697
Long-term debt	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,332
Shareholders' equity (deficit)	\$ (933)	\$ (232)	\$ (1,648)	\$ (5,015)

-6-

RISK FACTORS

You should carefully consider the following risks and all other information contained in this prospectus before you decide to buy our common stock. We have included a discussion of each material risk that we have identified as of the date of this prospectus. If any of the following risks actually occur, our business, financial condition or operating results could suffer. If this occurs, the trading price of our common stock could decline, and you could lose all or part of the money you paid to buy our common stock.

Risks Relating to this Offering

Economic conditions beyond our control may keep the price of our stock low.

Numerous factors, many of which are beyond our control, may cause the market price of our common stock to fluctuate significantly. These factors include, but are not limited to, the following:

- o continued losses;
- o announcements concerning us, our competitors or our customers;
- o market conditions in the electric vehicle and the hybrid electric vehicle industry and the general state of the securities markets.

General economic, political and market conditions, including recession, international instability or military tension or conflicts may adversely affect

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

the market price of our common stock. If we are named as a defendant in any securities-related litigation as a result of decreases in the market price of our shares, we may incur substantial costs, and our management's attention may be diverted, for lengthy periods of time. The market price of our common stock may not increase above the offering price or maintain its price at or above any particular level.

Securities traded on the OTC Bulletin Board are generally thinly traded and an active market may never develop.

Our common stock trades on the OTC Bulletin Board. Shares traded in the OTC market are generally bought and sold in small amounts, highly volatile and not usually followed by analysts. You may therefore have difficulty selling your shares in the resale market.

"Penny stock" regulations may impose restrictions on marketability of our stock.

The Securities and Exchange Commission has adopted regulations which generally define "penny stock" to be any equity security that is not traded on a national securities exchange or NASDAQ and that has a market price of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to certain exceptions. Since our securities that are currently included on the OTC Bulletin Board are trading at less than \$5.00 per share at any time, our stock may become subject to rules that impose

-7-

additional sales practice requirements on broker-dealers who sell such securities to persons other than established customers and accredited investors. Accredited investors generally include investors that have assets in excess of \$1,000,000 or an individual annual income exceeding \$200,000, or together with the investor's spouse, a joint income of \$300,000. For transactions covered by these rules, the broker-dealer must make a special suitability determination for the purchase of the securities and must receive the purchaser's written consent to the transaction prior to the purchase. Additionally, for any transaction involving penny stock, unless exempt, the rules require, among other things, the delivery, prior to the transaction, of a risk disclosure document mandated by the SEC relating to the penny stock market and the risks associated therewith. The broker-dealer must also disclose the commission payable to both the broker-dealer and the registered representative, current quotations for the securities and, if the broker-dealer is the sole market-maker, the broker dealer must disclose this fact and the broker-dealer's presumed control over the market. Finally, monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. Consequently, the penny stock rules may restrict the ability of broker-dealers to sell our securities and may affect your ability to sell your shares in the secondary market.

We do not expect to pay dividends in the foreseeable future.

We have not declared or paid any cash dividends in the past and do not expect to pay cash dividends in the foreseeable future. We intend to retain our future earnings, if any, to finance the development of our business. We are required to pay dividends on our Series A Stock and our Series B Stock before we may pay dividends on our common stock. At March 31, 2002, we had an accumulated deficit of approximately \$90,997,000 and, until this deficit is eliminated, we are prohibited from paying dividends on any class of our stock except out of net profits unless we can meet certain assets and other tests under Sections 500 through 511 of the California Corporations Code. Our board of directors will

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

determine any future dividend policy in light of the all of the foregoing information and then existing conditions, including our earnings, financial condition and financial requirements. You may never receive dividend payments from us.

As of the date of this prospectus, we have outstanding 302,732,000 shares of common stock, 2,844,336 shares of Series A Stock, each of which is convertible into one share of common stock, and 1,217,196 shares of Series B Stock, each of which is convertible into two shares of common stock. Sales of a substantial number of shares of our common stock in the public market following this offering could cause our stock price to decline. All the shares sold in this offering will be freely tradable. Currently 93,676,002 shares of common stock are freely tradable and an additional 5,278,728 shares of Series A Stock or Series B Stock would be freely tradable upon conversion to common stock. An additional 131,494,137 shares of common stock are eligible for sale in the public market subject to volume restrictions of Rule 144, shares of common stock issuable upon exercise of outstanding options will become freely tradable upon issuance. In addition, the sale of these shares could impair our ability to raise capital through the sale of additional stock. See "Shares Eligible for Future Sale."

-8-

Our principal shareholders, executive officers and directors have substantial control over most matters submitted to a vote of the shareholders, thereby limiting your power to influence corporate action.

Our officers, directors and principal shareholders beneficially own approximately 60% of our common stock (including in that percentage shares of our Series A Stock and Series B Stock). As a result, these shareholders have the power to control the outcome of most matters submitted to a vote of shareholders, including the election of members of our board, and the approval of significant corporate transactions. The shareholders purchasing shares in this offering will have little influence on these matters. This concentration of ownership may also have the effect of making it more difficult to obtain the needed approval for some types of transactions that these shareholders oppose, and may result in delaying, deferring or preventing a change in control of our company.

The effects of anti-takeover provisions in our charter and bylaws could inhibit the acquisition of us by others.

Several provisions of our articles of incorporation and bylaws could discourage potential acquisition proposals and could delay or prevent a change in control of our company.

Risks Related to Our Business

Our industry is new and is subject to technological changes.

The mobile and stationary power markets including electric vehicle and hybrid electric vehicles continue to be subject to rapid technological change. Most of the major domestic and foreign automobile manufacturers: (1) have already produced electric and hybrid vehicles, and/or (2) have developed improved electric storage, propulsion and control systems, and/or (3) are now entering or have entered into production, while continuing to improve technology or incorporate newer technology. Various companies are also developing improved electric storage, propulsion and control systems. In addition, the stationary power market is still in its infancy. A number of established energy companies

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

are developing new technologies. Cost-effective methods to reduce price per kilowatt have yet to be established and the stationary power market is not yet viable.

Our current products are designed for use with, and are dependent upon, existing technology. As technologies change, and subject to our limited available resources, we plan to upgrade or adapt our products in order to continue to provide products with the latest technology. We cannot assure you, however, that we will be able to avoid technological obsolescence, that the market for our products will not ultimately be dominated by technologies other than ours, or that we will be able to adapt to changes in or create "leading-edge" technology. In addition, further proprietary technological development by others could prohibit us from using our own technology.

There are substantial risks involved in the development of unproven products.

-9-

In order to remain competitive, we must adapt existing products as well as develop new products and technologies. In fiscal years 2000 and 2001 we spent in excess of \$1.5 million on research and development of new products and technology. Despite our best efforts a new product or technology may prove to be unworkable, not cost effective, or otherwise unmarketable. We can give you no assurance that any new product or technology we may develop will be successful or that an adequate market for such product or technology will ever develop.

We may be unable to effectively compete with other companies who have significantly greater resources than we have.

Many of our competitors, in the automotive, electronic and other industries, are larger, more established companies that have substantially greater financial, personnel, and other resources than we do. These companies may be actively engaged in the research and development of power management and conversion systems. Because of their greater resources, some of our competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements, or to devote greater resources to the promotion and sales of their products than we can. We believe that developing and maintaining a competitive advantage will require continued investment in product development, manufacturing capability and sales and marketing. We cannot assure you that we will have sufficient resources to make the necessary investments to do so. In addition, current and potential competitors may establish collaborative relationships among themselves or with third parties, including third parties with whom we have relationships. Accordingly, new competitors or alliances may emerge and rapidly acquire significant market share.

We have continued losses.

Our company was founded in 1976 as Clover Solar Corporation, but initial sales were very limited and were unprofitable as a manufacturer of solar powered toys. The name was then changed to Solar Electric Engineering in 1978. In 1992, we became known as U. S. Electricar, Inc. In July 2000, we changed our name to Enova Systems, Inc.

We have been profitable in only one year, fiscal 1986. For the three months ended March 31, 2002, the Corporation lost an additional \$704,000 on sales of \$941,000. There can be no assurance that we will achieve profitability in the near or foreseeable future.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

If we do not raise significant additional capital, we will be unable to fund continuing operations and will likely be forced to reduce or even cease operations.

We need substantial working capital to fund our operations. As of March 31, 2002, we had cash, cash equivalents and short-term investment balances of approximately \$793,000. Our projections show that cash on hand as of March 31, 2002 will be sufficient to fund operations at the current level through December 2002 based in part upon receipt of additional capital from our majority stockholder, Jagen Pty, Ltd. Jagen has committed to fund up to \$2,000,000 during 2002.

-10-

We are currently negotiating to correct a payment default with respect to a \$120,000 unsecured note to Jeann Schulz. Unless we are successful in our efforts to raise additional funds, our cash resources will be used to satisfy our existing liabilities, such as that of Ms. Schulz, and we will be unable to fund our current operations, which may result in the reduction or cessation of operations. Even if we are successful in these efforts to raise funds, such funds may not be adequate to fund our operations on a long-term basis.

Future equity financings may dilute your holdings in our company.

We need to obtain additional funding through public or private equity or debt financing, collaborative agreements or from other sources. If we raise additional funds by issuing equity securities, current shareholders may experience significant dilution of their holdings. We may be unable to obtain adequate financing on acceptable terms, if at all. If we are unable to obtain adequate funds, we may be required to reduce significantly our spending and delay, scale back or eliminate research, development or marketing programs, or cease operations altogether.

Potential intellectual property, shareholder or other litigation could adversely impact our business.

Because of the nature of our business, we may face litigation relating to intellectual property matters, labor matters, product liability or shareholder disputes. Any litigation could be costly, divert management attention or result in increased costs of doing business. Although we intend to vigorously defend any future lawsuits, we cannot assure you that we would ultimately prevail in these efforts. An adverse judgment could negatively impact the price of our common stock and our ability to obtain future financing on favorable terms or at all.

We may be exposed to product liability or tort claims if our products fail, which could adversely impact our results of operations.

A malfunction or the inadequate design of our products could result in product liability or other tort claims. Accidents involving our products could lead to personal injury or physical damage. Any liability for damages resulting from malfunctions could be substantial and could materially adversely affect our business and results of operations. In addition, a well-publicized actual or perceived problem could adversely affect the market's perception of our products. This could result in a decline in demand for our products, which would

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

materially adversely affect our financial condition and results of operations.

We are highly subject to general economic conditions.

The financial success of our company is sensitive to adverse changes in general economic conditions, such as inflation, unemployment, and consumer demand for our products. These changes could cause the cost of supplies, labor, and other expenses to rise faster than we can raise prices. Such changing conditions also could significantly

-11-

reduce demand in the marketplace for our products. We have no control over any of these changes.

We are an early growth stage company.

Although our company was originally founded in 1976, many aspects of our business are still in the early growth stage development, and our proposed operations are subject to all of the risks inherent in a start-up or growing business enterprise, including the likelihood of continued operating losses. The likelihood of our success must be considered in light of the problems, expenses, difficulties, complications, and delays frequently encountered in connection with the growth of an existing business, the development of new products and channels of distribution, and current and future development in several key technical fields, as well as the competitive and regulatory environment in which we operate.

We operate in a highly regulated business environment and changes in regulation could impose costs on us or make our products less economical.

Our products are subject to federal, state, local and foreign laws and regulations, governing, among other things, emissions as well as laws relating to occupational health and safety. Regulatory agencies may impose special requirements for implementation and operation of our products or may significantly impact or even eliminate some of our target markets. We may incur material costs or liabilities in complying with government regulations. In addition, potentially significant expenditures could be required in order to comply with evolving environmental and health and safety laws, regulations and requirements that may be adopted or imposed in the future.

We are highly dependent on a few key personnel and will need to retain and attract such personnel in a labor competitive market.

Our success is largely dependent on the performance of our key management and technical personnel, including Carl Perry, our Chief Executive Officer, Abas Goodarzi, our Chief of Technology, Don Kang, our Vice President of Engineering and Larry Lombard, Finance and Administration, the loss of one or more of whom could adversely affect our business. Additionally, in order to successfully implement our anticipated growth, we will be dependent on our ability to hire additional qualified personnel. There can be no assurance that we will be able to retain or hire other necessary personnel. We do not maintain key man life insurance on any of our key personnel. We believe that our future success will depend in part upon our continued ability to attract, retain, and motivate additional highly skilled personnel in an increasingly competitive market. There are minimal barriers to entry in our market.

We presently license or own a limited amount of proprietary technology and, therefore, have created little or no barrier to entry for competitors other than the time and significant expense required to assemble and develop similar

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

production and design

-12-

capabilities. Our competitors may enter into exclusive arrangements with our current or potential suppliers, thereby giving them a competitive edge which we may not be able to overcome, and which may exclude us from similar relationships.

Our industry is affected by political and legislative changes.

In recent years there has been significant public pressure to enact legislation in the United States and abroad to reduce or eliminate automobile pollution. Although states such as California have enacted such legislation, we cannot assure you that there will not be further legislation enacted changing current requirements or that current legislation or state mandates will not be repealed or amended, or that a different form of zero emission or low emission vehicle will not be invented, developed and produced, and achieve greater market acceptance than electric or hybrid electric vehicles. Extensions, modifications or reductions of current federal and state legislation, mandates and potential tax incentives could also adversely affect our business prospects if implemented.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

Some of the matters discussed under the captions "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Business" and elsewhere in this prospectus include forward-looking statements. We have based these forward-looking statements on our current expectations and projections about future events.

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "could," "predicts," "potential," "continue," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates" and similar expressions. These statements are based on our current beliefs, expectations and assumptions and are subject to a number of risks and uncertainties. Actual results, levels of activity, performance, achievements and events may vary significantly from those implied by the forward-looking statements. A description of risks that could cause our results to vary appears under the caption "Risk Factors" and elsewhere in this prospectus. These forward-looking statements are made as of the date of this prospectus, and, except as required under applicable securities law, we assume no obligation to update them or to explain the reasons why actual results may differ.

-13-

USE OF PROCEEDS

All proceeds from any sale of shares of common stock offered by the selling shareholder will be received by the selling shareholder and not by us.

PRICE RANGE OF COMMON STOCK

Our common stock is traded in the National Association of Securities Dealers, Inc. Electronic Bulletin Board ("OTC Bulletin Board") under the symbol "ENVA". The following table sets forth, for the fiscal quarters indicated, the high and

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

low prices for our common stock as reported on the OTC Bulletin Board by the National Quote Bureau. The following over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, markdown or commission, and may not necessarily represent actual transactions.

	Common Stock High Price -----	Low Price -----	Average Daily Volume -----
Fiscal 2000			
First Quarter	\$ 0.77	\$ 0.31	1,337,885
Second Quarter	\$ 0.47	\$ 0.23	476,538
Third Quarter	\$ 0.44	\$ 0.20	476,523
Fourth Quarter	\$ 0.42	\$ 0.16	332,731
Fiscal 2001			
First Quarter	\$ 0.31	\$ 0.17	237,760
Second Quarter	\$ 0.31	\$ 0.15	245,504
Third Quarter	\$ 0.26	\$ 0.13	116,110
Fourth Quarter	\$ 0.31	\$ 0.13	197,554
Fiscal 2002			
First Quarter	\$ 0.23	\$ 0.14	265,875
Second Quarter (through May 17, 2002)	\$ 0.18	\$ 0.14	127,248

-14-

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We retain any future earnings to fund our business. Additionally, we are required to pay dividends on our Series A Stock and our Series B Stock before we may pay dividends on our common stock. Therefore, we do not anticipate paying cash dividends on our common stock in the foreseeable future. At March 31, 2002, we had an accumulated deficit of approximately \$90,997,000. Until this deficit is eliminated, we are prohibited from paying dividends on any class of our stock except out of net profits unless we can meet certain assets and other tests under Sections 500 through 511 of the California Corporations Code. Our board of directors will determine any future dividend policy in light of the all of the foregoing information and then existing conditions, including our earnings, financial condition and financial requirements.

CAPITALIZATION

The following table summarizes our balance sheet data as of March 31, 2002, December 31, 2001 and December 31, 2000:

DEBT:

Long Term Debt - CMAC Note

As of
03/31/200

3,332

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

SHAREHOLDERS DEFICIT:

Series A preferred stock - No par value; 30,000,000 shares authorized; 2,844,000 shares issued and outstanding at 03/31/02, 12/30/01 and 12/31/00	1,867
Series B preferred stock - No par value; 5,000,000 shares authorized; 1,217,000 shares issued and outstanding at 03/31/02, 12/30/01 and 12/31/00	2,434
Stock notes receivable	(1,208)
Common Stock - No par value; 500,000,000 shares authorized; 302,732,000 issued and outstanding at 03/31/02, 302,702,000 and 244,249,000 shares issued and outstanding at 12/31/01 and 12/31/00	79,862
Common stock subscribed	160
Additional paid-in capital	6,949
Accumulated deficit	(90,997)
Total Shareholders Deficit	(933)
TOTAL CAPITALIZATION	\$ 2,399
	=====

This information should be read together with our Financial Statements and the related Notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus.

-15-

SELECTED FINANCIAL DATA

The following selected financial data tables set forth selected financial data for three months ended March 31, 2002, the year ended December 31, 2001 and 2000, the five month period ended December 31, 1999 and the fiscal years ended July 31, 1999, 1998 and 1997. The five-month period is related to a change in the fiscal year end which was effective December 31, 1999. The statement of income data and balance sheet data for the three months ended March 31, 2002 are unaudited. The statement of income data and balance sheet data for and as of the end of the year ended December 31, 2001 and 2000, the five month period ended December 31, 1999 and the three years ended July 31, 1999 are derived from the audited Financial Statements of Enova. The following selected financial data should be read in conjunction with, and are qualified in their entirety by, our financial statements, including the notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in the following pages of this prospectus.

As of and (in thousands, except per share data)	For the Quarter ended March 31,	For the Year ended December 31,		Five Months ended Dec 31
	2002	2001	2000	1999
	-----	-----	-----	-----
NET SALES	\$ 941	\$ 3,780	\$ 2,883	\$ 629
COST OF SALES	702	2,783	2,013	377
	-----	-----	-----	-----
GROSS MARGIN	239	997	870	252

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

OTHER COSTS AND EXPENSES				
Research and Development	275	879	626	262
Selling, general and administrative	615	2,894	1,999	796
Interest and financing fees	55	113	174	724
Other expense (income)	(7)	(7)	6	
Acquisition of research and Development				
Gain on Warranty Reevaluations				
Legal Settlements		900	755	125
Total other costs and expenses	943	4,779	2,880	1,427
LOSS FROM CONTINUING OPERATIONS	(704)	(3,782)	(2,010)	(1,175)
GAIN ON DEBT RESTRUCTURING	0	354	1,551	214
NET LOSS	\$ (704)	\$ (3,428)	\$ (459)	\$ (961)
PER COMMON SHARE:				
Loss from continuing operations	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)
Gain on debt restructuring			\$ 0.01	
Net loss per common share	\$ (0.01)	\$ (0.01)	\$ 0.00	\$ (0.01)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING	302,532	275,189	235,199	251,994
Total Assets	\$ 4,121	\$ 4,340	\$ 3,094	\$ 2,697
Long-term debt	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,332
Shareholders' equity (deficit)	\$ (933)	\$ (232)	\$ (1,648)	\$ (5,015)

-16-

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read this Management's Discussion and Analysis of Financial Condition and Results of Operations in conjunction with our 2002 and 2001 Financial Statements and Notes thereto. The matters addressed in this Management's Discussion and Analysis of Financial Condition and Results of Operations, with the exception of the historical information presented contains certain forward-looking statements involving risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under the heading "Risk Factors."

Overview

Enova develops and produces advanced software, firmware and hardware for applications in the alternative power industry. Our focus is digital power conversion, power management, and system integration, for two broad market applications - vehicle power generation and stationary power generation.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Specifically, we develop, design and produce drive systems and related components for electric, hybrid-electric, fuel cell and microturbine-powered vehicles. We also develop, design and produce power management and power conversion components for stationary power generation - both on-site distributed power and on-site telecommunications back-up power applications. These stationary applications also employ fuel cells, microturbines and advanced batteries for power storage and generation. Additionally, we perform research and development to augment and support others' and our own related product development efforts.

Our products and systems are the enabling technologies for power systems. Without these types of enabling technologies, power cannot be converted into the appropriate form required by the vehicle or device; nor is power properly managed to protect the battery, vehicle or device, and user.

Our product development strategy is to design and introduce to market successively advanced products, each based on our core technical competencies. In each of our product / market segments, we provide products and services to leverage our core competencies in digital power management, power conversion and system integration. We believe that the underlying technical requirements shared among the market segments will allow us to more quickly transition from one emerging market to the next, with the goal of capturing early market share.

During 2001, we expanded our sales and development efforts to capture additional global market share for our product line and our technical expertise. We expanded into European and Asian markets with our heavy duty drive systems and continued to progress on our development programs with Ford, Ballard, Hyundai and the DOT. Our

-17-

balance sheet strengthened, we are now focusing on building our product line, increasing our market share and developing the next generation of advanced power management and conversion systems.

Our operations during the year ended December 31, 2001 were financed by development contracts and product sales, as well as an additional equity infusion of \$3,000,000 from Jagen Pty, Ltd and Anthony Rawlinson for the purchase of 50,000,000 shares of common stock, as previously reported.

We have completed the restructuring of our prior liabilities and debt. It is our intention to continue to seek additional financing through private placements and other means to increase research and development spending, procure inventory and seek additional alliances to market our products. As of May 17, 2002, we have received a commitment from Jagen Pty, Ltd to fund up to \$2,000,000 during 2002.

In the ordinary course of business, the company has made a number of estimates and assumptions relating to the reporting of results of operations and financial condition in the preparation of its financial statements in conformity with accounting principles generally accepted in the United States. Actual results could differ significantly from those estimates under different assumptions and conditions. The Company believes that the following discussion addresses the Company's most critical accounting policies, which are those that are most important to the portrayal of the Company's financial condition and results. The Company constantly re-evaluates these significant factors and makes adjustments where facts and circumstances dictate. Historically, actual results have not

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

significantly deviated from those determined using the necessary estimates inherent in the preparation of financial statements. Estimates and assumptions include, but are not limited to, customer receivables, inventories, equity investments, fixed asset lives, contingencies and litigation. The Company has also chosen certain accounting policies when options were available, including:

- o The first-in, first-out (FIFO) method to value our inventories;
- o The intrinsic value method, or APB Opinion No. 25, to account for our stock options;
- o Review of customers' receivable to determine the need for an allowance for credit losses based on estimates of customers' ability to pay. If the financial condition of our customers were to deteriorate, additional allowances may be required.

These accounting policies are applied consistently for all years presented. Our operating results would be affected if other alternatives were used. Information about the impact on our operating results is included in the footnotes to our consolidated financial statements.

-18-

The financial statements present our financial condition as of March 31, 2002, December 31, 2001 and 2000, the results of operations and cash flows for the three months ended March 31, 2002, the year ended December 31, 2001 and 2000 and the five month period ended December 31, 1999, as well as the three preceding fiscal years ended July 31, 1999, 1998 and 1997. All references to the 1999 fiscal year denote the twelve months ended July 31, 1999.

Three Months Ended March 31, 2002

During the three months ended March 30, 2002, we continued to develop and produce electric and hybrid electric drive systems and components for Ford Motor Company, Hyundai Motor Company and several domestic and international vehicle and bus manufacturers. We also are continuing on our current research and development programs with Hyundai Motor Company and the U.S. Department of Transportation as well as developing new programs with Hyundai and the federal government.

Ford Motor Company

Our program with Ford Motor Company to develop and manufacture a high power, high voltage conversion module for their fuel cell vehicle is progressing well. The High Voltage Energy Converter was a key component in Ford's Focus FCV, which was featured at the New York International Auto Show in February 2002. The high voltage conversion module converts high voltage power from the fuel cell into a lower voltage. We are currently in the second phase of this program and the units are meeting expectations in performance and reliability. In the three months ended March 31, 2002, we billed approximately \$70,000 from this Ford program.

Ballard Power

Our development and production program with Ballard Power for low voltage electric drive system components for use in Ford's Global Th!nk City has moved into its production phase. Ford has announced that the all-electric vehicle is scheduled to be introduced in 2002 for markets in North America and Europe. We have designed and are commencing high-volume manufacturing of the electronics

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

for the drive system including the power inverter, charger and controller. In conjunction with Hyundai Autonet of Korea, we are finalizing production planning for initial production systems to be delivered in mid 2002. Gross revenues for the three months ended March 31, 2002 from this Ballard program were approximately \$69,000. Additional revenues for non-recurring engineering will be realized in the second quarter and production revenues should commence in the third quarter of 2002 based on projections we have received from Ford and Ballard. We anticipate that sales of these systems will provide additional revenues in the upcoming years, however, we cannot assure that there will be any such future revenues.

Hyundai Motor Company Programs

-19-

Hyundai continues to contract with our company for the development of advanced hybrid and fuel cell powered drive systems. In regards to passenger vehicle programs, we have developed a commercially viable parallel hybrid motor and controller for Hyundai's new hybrid vehicle to be introduced in 2004. We have teamed with SL Montevideo of Minnesota and Hyundai Heavy Industries of Korea to build this new motor and controller. The prototype drive system for this program was delivered to Hyundai Motor Company in February 2002. We expect to learn the results of Hyundai's evaluation of the prototype during the second quarter of 2002.

Additionally, Hyundai Motor is procuring a number of our High Energy Converter modules for use in their hybrid fuel cell programs. Hyundai has indicated that they will purchase additional systems for other programs during 2002.

Development programs with Hyundai generated approximately \$470,000 in sales for the quarter ended March 31, 2002. We anticipate additional contracts for both development and purchase of our components during 2002 for Hyundai's alternative vehicle applications, however we cannot assure that such additional contracts will be realized.

Light-Duty Drive Systems

In addition to the 30kW motor controller, charger and DC-DC converter that we, in alliance with Hyundai Autonet, are manufacturing for Ballard Power, we are also marketing and manufacturing our Panther(TM) 90kW drive systems. Our 90kW controller, motor and gear unit provide outstanding performance for light duty vehicles such as midsize automobiles and delivery vehicles. Our outsource manufacturer for the Panther(TM) 90kW drive system is Hyundai Heavy Industries.

We have received a purchase order for over 200 Panther(TM) 90kW drive systems for delivery in 2002 and 2003 from Voltage Vehicles of California, an integrator of specialty vehicles. We have begun delivery of these systems and anticipate producing approximately 100 systems representing approximately \$1,000,000 in gross revenues this year. Additionally, we are discussing further sales of this system configuration to other domestic and international customers; however, we can give no assurance at this time that such discussions will result in any further sales.

Heavy-Duty Drive Systems

Sales of our Panther(TM) 120kW drive systems continue to provide increased revenues for our company. We are selling drive systems to manufacturers in Europe and Japan as well as domestically. Hyundai Heavy Industries is also our

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

outsource manufacturer for the Panther(TM) 120kW as well as the motor and controller for our Panther(TM) 240kW drive systems.

Eco Power Technology of Italy has purchased an additional 27 Panther(TM) 120kW electric and hybrid electric drive systems which will be delivered in 2002. The hybrid electric drive systems include the Capstone 30kW microturbine as their power source. Eco Power is one of the largest integrators of medium size transit buses for the European

-20-

shuttle bus market with key customers in Rome and Genoa. Total sales for the quarter ended March 31, 2002 from Eco Power were \$152,000 which does not include the new systems sales.

Wrights Environment, a division of Wrights Bus, one of the largest low-floor bus manufacturers in the United Kingdom, has integrated our hybrid electric Panther(TM) 120kW drive system, which utilizes a microturbine from Capstone Turbine Corporation as its power source. The bus is currently performing to specifications and has been tested at the Milford Test facility, a renowned European bus test location. Wrights has purchased additional pure electric drive systems for their midsize buses for sale in the United Kingdom and the European Continent. Further, we are in negotiations with them to purchase both our new 240kW drive system and our Fast Charger system. We anticipate additional orders for both electric and hybrid-electric 240kW drive systems during 2002; however, we cannot assure at this time that such additional contracts will be realized.

Tomoe Electro-Mechanical Engineering and Manufacturing, Inc. and Moria Corporation of Japan have both received our 120kW drive systems and have begun integrating them into their bus platforms. We are working closely with these companies to ensure a successful integration and future sales. We anticipate that both companies will purchase additional systems during 2002, however we can make no assurance that any purchases will occur.

The development of a utility vehicle for Southern California Edison, in partnership with the South Coast Air Quality Management District, utilizing our 120kW drive system and a Capstone Turbine Corporation 30kW microturbine continues on schedule. We are completed the development and production of our additional power management accessories for this vehicle so that it can run power applications such as drills and motors used by the Southern California Edison technicians. The purpose of this project is to demonstrate and evaluate this unique hybrid power drive system. Our system will be able to power the vehicle as well as the auxiliary utility accessories which will eliminate the need for a separate diesel generator normally trailered behind the vehicle. These systems have been delivered and are being integrated into the vehicle. This line service truck will be a demonstration vehicle, which we anticipate will lead to sales to utility companies throughout the U.S. We cannot assure at this time that such sales will occur.

In the high performance heavy-duty drive system area, our 240kW drive system has been successfully integrated into a heavy-duty application and its performance is exceeding expectations. We have currently produced five initial systems and have begun on the next order for five to ten more. Advanced Vehicle Systems "AVS" of Tennessee has purchased one electric 240kW system and is in the process of integration and performance evaluation. The 240kW drive system is designed for heavy-duty applications such as transit buses and heavy-duty trucks. We are finalizing an agreement with Hyundai for the purchase of this 240kW system for their heavy-duty vehicle applications which will be combined with a fuel cell

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

for urban and transit bus applications. Additionally, we are in discussions with Wrights of the United Kingdom and other bus manufacturers regarding the purchase of these drive systems in 2002. We

-21-

can make no assurance that these discussions will result in any sales of the Panther(TM) 240kW drive system.

Research and Development Programs

Our research and development programs with the U.S. department of Transportation and the State of Hawaii continue to provide us with new insights and innovations in the development and integration of our electric vehicle programs.

The Hyundai Santa Fe electric vehicle program has provided us with valuable data regarding performance, battery life and vehicle maintenance. The program utilizes Hawaii's rapid charging stations, manufactured by AeroVironment, and has enabled us to fine tune our power management systems to the specifications of numerous battery manufacturers. The contract has two elements, one for integration of our BCU II battery care unit, which allows the vehicles to accept fast charging, and a second contract for maintenance of the vehicles over the two-year program. The participants in the program include state and local offices as well as Hickam Air Force base. The vehicles are performing well and reports on their performance and handling continue to be positive.

Our contract with the DOT to design and test a three-car tram utilizing the Panther(TM) 120kW drive system has been completed and has been delivered to the High Technology Development Corporation's facility in Honolulu. This tram, capable of carrying 100 passengers, will now be delivered to the Honolulu International Airport for further test and evaluation. If successful, we intend to market this tram system to international markets for application to other airports, national and recreational parks and other high capacity transit applications.

The Eldorado 30-foot bus conversion utilizing our Panther(TM) 120kW drive system for the Hickam Air Force base is nearing completion. The success of this program is leading to a potential new contract with Hickam to integrate a hybrid drive system into a second 30-foot bus for the Air Force base. We cannot assure at this time that such a contract will be finalized.

All of these programs are funded in conjunction with the Hawaii Electric Vehicle Development Project, the DOT and the State of Hawaii.

We will continue to establish new development programs with the Hawaii High Technology Development Corporation as well as other state and federal government agencies as funding becomes available.

Stationary Power Applications

Our stationary power programs continue to attract new potential partners and customers from both fuel cell manufacturers and petroleum companies. It is our belief that utilizing our power management systems for stationary applications for fuel cells will open new markets for our company. We are also developing applications for these products in the telecommunications and distributed generation markets. We can make no assurance

that we will successfully develop such applications or that any such applications will find acceptance in the marketplace.

Our fuel cell care units are being delivered to UTC Fuel Cells, a division of United Technologies Corp., for use in their stationary fuel cell systems. To date, UTC Fuel Cells and Hamilton Sundstrand, an aerospace division of United Technologies, have ordered approximately 30 fuel cell care units. The Hyundai companies have also expressed interest in working with us on the development of advanced fuel cell management technologies and we are currently in negotiations with a domestic energy company for stationary applications of our fuel cell management system. We believe this market will play a key role in our future and we continue to pursue alliances with leading manufacturers in this area, however, we can make no assurance that this market will develop as anticipated or that such alliances will occur.

LIQUIDITY AND CAPITAL RESOURCES

We have experienced cash flow shortages due to operating losses primarily attributable to research, development, marketing and other costs associated with the our strategic plan to become an international manufacturer and supplier of electric propulsion and power management systems and components. Cash flows from operations have not been sufficient to meet our obligations as they came due. We have therefore had to raise funds through several financial transactions. At least until we reach breakeven volume in sales and develop and/or acquire the capability to manufacture and sell its products profitably, we will need to continue to rely on cash from external financing. We anticipate that it will require additional outside financing to meet research and development expenditures through 2003.

We have completed the restructuring of our prior liabilities and debt. It is our intention to continue to seek additional financing through private placements and other means to increase research and development spending, procure inventory and seek additional alliances to market our products. As of May 17, 2002, we have received a commitment from Jagen Pty, Ltd to fund up to \$2,000,000 during 2002.

During the three months ended March 31, 2002, we spent \$387,000 in cash on operating activities to fund the net loss of \$704,000 resulting from factors explained in the following section of this discussion and analysis. Accounts receivable decreased by \$359,000 due to aggressive collection of receivables. Inventory increased by \$420,000 from December 31, 2001 as we continue to build up our raw materials and work in progress inventories for the Ballard production commencing in second quarter 2002 and other programs such as our 120kW drive system sales to EcoPower, Wrights and other bus manufacturers.

Current liabilities increased by a net of \$434,000 due to purchases made in connection with various on-going development programs. As we expand our customer base and produce higher inventories for sales, we have negotiated extended terms with several of our key suppliers, which allows us improved cash flows. Interest accruing on notes payable increased by \$27,000 for the three months ended March 31, 2002 compared

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

with the similar period in 2001 due to an increase in the interest rate on the \$3.3 million CMAC note per the terms of that agreement.

-24-

RESULTS OF OPERATIONS for the Three Months Ended March 31, 2002

Net sales in the three months ending March 31, 2002 decreased by \$174,000 from the corresponding quarter in 2001. The decrease as compared with the prior year was primarily due to carry forward of the Ballard billings which would have increased sales over the prior year had they been included in this quarter. Due to milestone restrictions set forth by Ballard, these revenues will not be earned until the final hardware is proven.

We believe these revenues will be booked during the second quarter of 2002. Development contracts with Hyundai Motor Company, Ballard Power Systems (for the Ford Think City Car) and Eco Power Technology account for a majority of the Company's sales in the first quarter of 2002.

Cost of sales in the quarter ended March 31, 2002 increased to \$702,000 compared to cost of sales of \$658,000 for the same three-month period in 2001. Costs incurred with respect to the Ballard development program have been recorded to cost of sales prior to the booking of the revenues associated with that program due to certain contract limitations set forth by Ballard. We believe these associated revenues will be recorded in the second quarter of 2002.

Research and development expense increased in the first quarter of 2002 to \$275,000 as compared with \$267,000 in the first quarter of 2001. We intend to utilize internal research and development as well as seek partners in the mobile and stationary alternative energy fields to develop new and enhanced products for drive system and distributed generation markets.

Selling, general and administrative expense increased \$167,000 to \$615,000 for the three months ended March 31, 2002 from the previous year's comparable period. We incurred additional professional fees in the amount of approximately \$100,000 in connection with a Form S1 prospectus filing during the first quarter of 2002. Additionally, we incurred additional marketing and travel expenses in our efforts to attract new customers and partners for the sale and distribution of our products.

Interest and financing fees increased to \$55,000 in the first quarter of 2002 from \$28,000 in the first quarter of 2001. Interest costs have increased due to a change in interest accrual for our \$3.3 million CMAC note in accordance with the original terms of that note.

We incurred a net loss from continuing operations of \$704,000 in the first quarter of 2002 compared to a net loss of \$270,000 in the first quarter of 2001. As discussed above, the net loss for the first quarter was significantly affected by the exclusion of the Ballard revenues, which could not be included.

-25-

Three Years Ended December 31, 2001

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Our fiscal year ends December 31. All year references refer to fiscal years.

During 1999, we concentrated on creating new business in the mobile power management and conversion markets as well as reducing operating costs and outstanding debt. Our business activities focused on the development of electric and hybrid electric drive trains and related components, fuel cell systems, vehicle systems integration and the performance of various engineering contracts. Enova completed several key contracts with the U.S. Government's Defense Advanced Research Project Agency or "DARPA" and the DOT, including the analysis of a new plastic lithium ion vehicle battery concept, testing of advanced vehicle batteries and development of an airport electric passenger tram system. We have enhanced our relationship with Hyundai, the world's seventh largest automobile manufacturer, with several engineering contracts to design, develop and test electric and hybrid electric drive systems and related products. We completed development of an advanced battery charging unit and a parallel hybrid production vehicle, and continue to produce the family of Panther(TM) drive systems for their electric vehicles. We also developed a high power charger for use with our drive systems. Hyundai has adapted a customized version of the Panther(TM) 60 for their production electric vehicle, the Santa Fe sports utility vehicle.

Beginning in 2000, we started working with Ecostar Electric Drive Systems, now known as Ballard Power, to develop and manufacture low voltage electric drive system components for use in Ford's Global Th!nk City. Ballard has announced that an all-electric vehicle is scheduled to be introduced in late 2002 for markets in North America. We are designing and manufacturing the electronics for the drive system in this vehicle as well as certain auxiliary components. The final prototype systems are currently undergoing pre-production testing and validation in the Ford Th!nk vehicle. We continue to develop our relationships with Hyundai, Ballard and other Original Equipment Manufacturers and Tier-One suppliers for sales of our automotive products. We offer modular drive systems to such manufacturers and other customers. These drive systems have been installed in various vehicles currently operating in North America, Europe and Asia.

In 2001, we commenced new development programs with automotive and transit manufacturers both domestically and internationally. Additionally, we completed various research and development programs sponsored by the U.S. Government and private corporations.

Ford Motor Company Programs

In July 2001, we entered into a strategic relationship with Ford Motor Company under which we were selected by Ford's Th!nk brand to develop and manufacture a high power, high voltage conversion module for their upcoming fuel cell vehicle. The high voltage conversion module will convert high voltage power from the fuel cell into a lower voltage. We are currently in the second phase of this program having successfully designed and tested the proof of concept prototype. To date, we have received approximately \$500,000 from this Ford program.

-26-

This strategic relationship also grants Ford warrants to purchase up to 4.6% of our outstanding common stock over the life of the relationship. The vesting of these warrants is dependent upon Ford contracting with us for additional new production programs. The relationship will last for five years during which time

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Ford will evaluate our company for future programs. Ford's warrants will vest at the rate of 2,500,000 warrants for every \$2,000,000 in new production business between Ford and Enova. The agreement between Ford and ourselves is referenced as Exhibit 10.18 in this Prospectus. Confidential treatment of this exhibit was requested for portions of this document.

Our development and production program with Ballard Power for low voltage electric drive system components for use in Ford's Global Th!nk City has moved into its production phase. Ford has announced that the all-electric vehicle is scheduled to be introduced in 2002 for markets in North America and Europe. We are designing and manufacturing the electronics for the drive system including the power inverter, charger and controller. In conjunction with Hyundai Autonet of Korea, we are finalizing production planning for initial production systems to be delivered in mid 2002. Gross revenues for the year ended December 31, 2001 from this Ballard program were approximately \$950,000. Based on projections we have received from Ford and Ballard, we anticipate that sales of these systems will provide additional revenues in the upcoming years, however, we cannot assure that there will be any such future revenues.

Hyundai Motor Company Programs

We continue to develop hybrid and fuel cell based systems with Hyundai Motor Company, the world's seventh largest automobile manufacturer. Having successfully completed our hybrid drive system and fuel cell electric vehicle program, we will work with Hyundai on advanced hybrid and fuel cell applications in 2002. We have delivered four series hybrid drive systems for use in Hyundai's county bus at the World Cup Soccer in Seoul, Korea in June 2002.

Hyundai continues to contract with our company for the development of advanced hybrid and fuel cell powered drive systems. In regards to passenger vehicle programs, we continue in our efforts to develop a commercially viable parallel hybrid motor and controller for Hyundai's new hybrid vehicle to be introduced in 2004. The prototype drive system for this program was delivered to Hyundai in February 2002. We expect to learn the results of Hyundai's evaluation of the prototype during the second quarter of 2002.

Development programs with Hyundai generated approximately \$450,000 in sales in the year ended December 31, 2001. We anticipate additional contracts for both development and purchase of our components during 2002 for Hyundai's alternative vehicle applications, however we cannot assure that such additional contracts will be realized.

Light-Duty Drive Systems

In addition to the 30kW motor controller, charger and DC-DC converter which we, in alliance with Hyundai Autonet, are manufacturing for Ballard Power, we are also marketing our Panther(TM) 90kW drive systems. Our 90kW controller, motor and gear unit provide outstanding performance for light duty vehicles such as midsize automobiles and delivery vehicles. We have received a purchase order for over 200 Panther(TM) 90kW drive systems for delivery in 2002 and 2003 from Voltage Vehicles of California, an integrator of specialty vehicles. Additionally, we are discussing further sales of this system configuration to other domestic and international

customers, however, we can give no assurance at this time that such discussions

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

will result in any further sales.

Heavy-Duty Drive Systems

Sales of our Panther(TM) 120kW drive systems continue to provide increased revenues for our company.

Eco Power Technology of Italy purchased 15 Panther(TM) 120kW electric drive systems, which were delivered during 2001, as well as three of our Fast Chargers. Eco Power has given notice of their production requirements for 2002, which range from 25 to 30 Panther(TM) 120kW systems and additional Fast Chargers. Eco Power is one of the largest integrators of medium size transit buses for the European shuttle bus market with key customers in Rome and Genoa. Total sales for the year ended December 31, 2001 from Eco Power were \$360,000.

Wrights Environment, a division of Wrights Bus, one of the largest low-floor bus manufacturers in the United Kingdom, has integrated our hybrid electric Panther(TM) 120kW drive system, which utilizes a microturbine from Capstone Turbine Corporation as its power source. Wrights has purchased additional pure electric drive systems for their midsize buses for sale in the United Kingdom and the European Continent. Further, Wrights has begun discussions to purchase both our new 240kW drive system and our Fast Charger system. We anticipate additional orders for both electric and hybrid-electric P120 drive systems during 2002, however, we cannot assure at this time that such additional contracts will be realized.

We have entered the Japanese bus market with two new customers, Tomoe Electro-Mechanical Engineering and Manufacturing, Inc. and Moriah Corporation. We have already delivered our first Panther(TM) 120kW system to Tomoe. We anticipate that both companies will purchase additional systems during 2002, however we can make no assurance that any purchases will occur.

The development of a utility vehicle for Southern California Edison utilizing our 120kW drive system and a Capstone Turbine Corporation 30kW microturbine continues on schedule. We are developing additional power management accessories for this vehicle so that it can run power applications such as drills and motors used by the Southern California Edison technicians. This line service truck will be a demonstration vehicle, which we anticipate will lead to sales to utility companies throughout the U.S. We cannot assure at this time that such sales will occur.

In the high performance heavy-duty drive system area; we have completed the first prototype of our Panther(TM) 240kW drive system. In conjunction with Hyundai Heavy Industries and Ricardo, Inc, of Michigan, a developer and manufacturer of advanced transmissions, we have produced a robust, efficient and powerful drive system for heavy-duty applications including transit buses, heavy-duty trucks and other applications. We have been in discussions with Wrights, Hyundai and a major alternative transit bus manufacturer in the U.S. regarding the purchase of these

-28-

drive systems in 2002. We can make no assurance that these discussions will

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

result in any sales of the Panther(TM) 240kW drive system.

Research and Development Programs

Our development and integration contracts with the DOT and the State of Hawaii continue to create new opportunities for our drive systems.

During 2001, Enova, Hyundai and the State of Hawaii introduced 15 Hyundai Santa Fe electric vehicles in Honolulu, Hawaii for test and evaluation prior to their entry into the U.S. markets. The program will utilize Hawaii's rapid charging stations, manufactured by AeroVironment. The contract has two elements, one for integration of our BCU II battery care unit, which allows the vehicles to accept fast charging, and a second contract for maintenance of the vehicles over the two-year program. The participants in the program include state and local offices as well as Hickam Air Force base. The vehicles are performing well and initial reactions to their performance and handling are positive.

Our contract with the DOT to design and test a three-car tram utilizing the Panther(TM) 120kW drive system has been completed and has been delivered to the High Technology Development Corporation's facility in Honolulu. This tram, capable of carrying 100 passengers, will now be delivered to the Honolulu International Airport for further test and evaluation. If successful, we intend to market this tram system to international markets for application to other airports, national and recreational parks and other high capacity transit applications.

We completed the integration of our drive systems into several State of Hawaii and DOT vehicles. We upgraded eight Chevrolet S-10 trucks owned by the City of Honolulu to our Panther(TM) 60kW drive system, including our BCU-II battery care unit for fast-charge capability. Also, we are converting an Eldorado 30-foot bus utilizing our Panther(TM) 120kW drive system for the Hickam Air Force base. All of these programs are funded in conjunction with the Hawaii Electric Vehicle Development Project, the DOT and the State of Hawaii.

Development programs with the Department of Transportation and the State of Hawaii accounted for approximately \$1,180,000 of total revenues for the year ended December 31, 2001. We will continue to establish new development programs with the Hawaii High Technology Development Corporation as well as other state and federal government agencies as funding becomes available.

Stationary Power Applications

Our stationary power programs continue to attract new potential partners and customers from both fuel cell manufacturers and petroleum companies. It is our belief that utilizing our power management systems for stationary applications for fuel cells will open new markets for our company. We are also developing applications for these products in the telecommunications and distributed generation markets. We can make no assurance that we will successfully develop such applications or that any such applications will find acceptance in the marketplace.

Our fuel cell care unit is being delivered to UTC Fuel Cells, a division of United Technologies Corp., for use in their stationary fuel cell systems. To date, we have delivered approximately

-29-

20 fuel cell care units to UTC Fuel Cells and to Hamilton Sundstrand, an aerospace division of United Technologies. The Hyundai companies have also

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

expressed interest in working with us on the development of advanced fuel cell management technologies, as have certain domestic energy companies. We believe this market will play a key role in our future and we continue to pursue alliances with leading manufacturers in this area, however, we can make no assurance that this market will develop as anticipated or that such alliances will occur.

We view stationary power applications of our power management systems as an important new area of product development. In the stationary power management field, we are developing applications for our products in the telecommunications and distributed generation markets. We believe our approach of providing the enabling technology in power management and conversion to power generation companies is key to early access to these markets. Our joint marketing and development efforts with Capstone Turbine Corporation, Avestor and UTC Fuel Cells have the potential to assist us in penetrating these markets. As discussed earlier, we are now producing and selling an advanced version of our BCU II battery care unit and fuel cell care unit for use with fuel cells in both stationary and mobile systems, starting with UTC Fuel Cells and the Institute for a Sustainable Environment Research Lab.

Investment Funding

We are seeking new investment capital to fund research and development and create new market opportunities. In order to fuel our growth in the stationary power market, we will need additional capital in order to create additional intellectual property. In May 2001, Jagen Pty, Ltd exercised warrants to purchase 41,666,666 shares of common stock at \$0.06 per share for a total of \$2,500,000. In July 2001, Anthony Rawlinson, our chairman, exercised warrants to purchase 8,333,334 shares of common stock at \$0.06 per share for a total of \$500,000. Jagen and Mr. Rawlinson represented that they were accredited investors. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, for the exemption from registration of the sale of such shares.

In June 2001, we issued warrants to purchase 15,000,000 shares of our common stock to Ford Motor Company with respect to a participation program. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, for the exemption from registration of the sale of such shares.

In early 2001, we retained Merrill Lynch as our investment advisor to pursue equity financing options and other strategic alternatives. We intend to vigorously pursue additional equity capital in order to fund new product development.

Liquidity and Capital Resources

We have experienced cash flow shortages due to operating losses primarily attributable to research, development, marketing and other costs associated with our strategic plan to become an international manufacturer and supplier of electric propulsion and power management systems and components. Due to increased research and development spending, cash flows from operations have not been sufficient. We therefore have to raise funds through private financial transactions. At least until we reach breakeven volume in sales and develop and/or acquire the capability to manufacture and sell our products profitably, we will need to continue to rely on cash from external financing. We anticipate that

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

we will require approximately \$5,000,000 in additional outside financing to fund planned operations and development programs through the end of 2003 at which time we believe we will begin to be profitable from ongoing operations. We can make no assurances that we will receive this amount of funding or that after receiving such, that our company will become profitable.

During the year ended December 31, 2001, our operations required \$3,023,000 more in cash than was generated. We continue to increase research and development spending, as well as increased sales, marketing and administrative expenses necessary for expansion to meet customer demand. Accounts receivable increased by \$233,000 from \$1,004,000, or 23% from the balance at December 31, 2000, as we continued to expand our customer base and increased sales. Inventory increased by \$520,000 from \$406,000 or 128% from December 31, 2000 balances. As we continue to enter into additional production contracts with companies such as Eco Power, Ford, Ballard and others, we will continue to require additional raw materials and finished goods to meet demand.

Fixed assets increased by \$219,000 or 28% before depreciation for the year ended December 31, 2001 from the prior year balance of \$784,220 as we increased both the number of engineers and the complexity of our programs. Increases in test equipment, production machinery and both technical hardware and software attributed to the increase.

Other assets increased by \$668,000 during 2001 from \$68,000 in 2000 primarily due to the booking of an asset in relation to the Ford Value Participation Agreement. We determined, utilizing the Black Scholes method, the value of the initial tranche of the vested warrants under this program is \$577,000. As additional warrants become vested in the coming years, they will be valued under the same methodology and booked as an expense and into stockholders equity. Additionally, increases were due to intellectual property expenses being applied as they relate to several new patents on our technology.

As of December 31, 2001, we completed our restructuring of the remainder of our antecedent payables, reducing those accounts to zero from \$210,000 in 2000.

Long term debt includes a secured promissory note to Credit Managers Association of California in the amount of \$3,332,000, with interest at 3% for the first five years beginning June 1996, 6% for years six and seven, and then at prime plus 3% through maturity; interest payments are made upon payment of principal, which is due no later than April 2016; a sinking fund escrow is required to be funded with 10% of future equity financing, as defined in the agreement. The note is secured with a UCC1 filing for all the assets of our company. We also have an unsecured promissory note for \$120,000 to Jeann Schulz with interest at 10%. This note is past due, however we are currently renegotiating terms to bring the note current.

Due to the nature of our industry and the amount of research and development which has been necessary to begin to produce commercially viable products, we have experienced the need for cash for operations from outside sources. We changed our business strategy in 1997 to focus on the development of drive systems and components for electric, hybrid-electric and fuel cell mobile and stationary applications. Invested capital from 1997 to the present has been used for the development and advancement of these systems which are now being sold as discussed elsewhere in this prospectus. We may, from time to time,

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

require additional invested capital to fund development of new or advanced technologies for our products.

The future unavailability or inadequacy of financing to meet future needs could force us to delay, modify, suspend or cease some or all aspects of our planned operations.

RESULTS OF OPERATIONS

Year Ended December 31, 2001 and 2000

Net sales of \$3,780,000 for the twelve months ended December 31, 2001 increased \$897,000 or 31% from \$2,883,000 during the same period in 2000. Our further expansion into production programs of our Panther(TM) 120kw systems as well as new contracts with Ford and the DOT accounted for the increase in sales. We changed our fiscal year end from July 31 to December 31 effective December 31, 1999. All comparisons of year-to-year financial data for 2000 to 1999 are for the twelve months ended December 31, 2000 and the twelve months ended July 31, 1999. Net sales of \$2,883,000 for the twelve months ended December 31, 2000 increased \$109,000 or 4% from \$2,774,000 during the same period in 1999. Cost of sales of \$2,783,000 for the year ended December 31, 2001 reflect an increase of \$770,000, or 38%, from \$2,013,000 for the year ended December 31, 2000. Cost of sales as a percentage of sales remained at approximately 70% in 2001 which is consistent with 2000. As our sales mix changes from primarily development contract revenues to more product sales, we believe this gross margin will remain the same or improve on a year-to-year basis. Cost of sales of \$2,013,000 for the year ended December 31, 2000 increased \$553,000, or 37%, from \$1,460,000 during the same period ending July 31, 1999. During the fiscal year ended July 31, 1999, we sold a technology license to Hyundai Heavy Industries which did not have associated costs of sales which accounted for the lesser amount in 1999. Product development costs incurred in the performance of engineering development contracts for the U.S. Government and private companies are charged to cost of sales for this contract revenue. Non-funded development costs are reported as research and development expense. Research and development expense increased in 2001 to \$879,000 from \$626,000 for the same period in 2000, an increase of \$253,000, or 40%. Research and development expense increased in 2000 to \$626,000 from \$499,000 in fiscal 1999, an increase of \$127,000 or 25%. As part of our long-term strategic plan, we will continue to expend funds for research and development for new technologies to enhance existing products as well as develop new products in the areas of mobile and stationary power management and conversion. Examples of these internally funded development programs include the 240kW drive system and our advanced power management systems for fuel cells and turbines.

Selling, general and administrative expense increased in the year ended December 31, 2001 to \$2,894,000 from \$1,999,000 for the similar period in 2000. Increased legal and accounting fees for the Fontal matter of approximately \$400,000, as well as increased regulatory requirements, account for the majority of the rise in expense. We do not anticipate this level of professional fees to continue. Additionally, we continue to increase sales, marketing and travel expenses in relation to acquiring new business, creating alliances and servicing current customers, which has resulted in additional sales for 2001 and will facilitate in increasing

-32-

sales for 2002. During 2001 and 2000, we continued to add employees to

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

accommodate our increased sales and customer services.

For the year ended December 31, 2001, interest and financing fees decreased by \$61,000 to \$113,000, a decrease of 35%. The reduction was due to restructuring of our long-term debt by forgiveness or conversion into equity. In 2000, interest and financing fees decreased to \$174,000 from \$724,000 in 1999, a decrease of 76%, due to the forgiveness of \$4,300,000 of debt, formerly the Itochu debt, and the conversion of \$1,000,000 of debt into common stock.

In 2001, we completed our restructuring of the remainder of our antecedent payables, reducing those accounts to zero from \$210,000 in 2000, which resulted in contributing to an extraordinary gain of \$354,000 for the year. Our liabilities and long-term debt are now current. During the year ended December 31, 2000, several unsecured creditors agreed to settle their trade debt claims for amounts less than the original debt owed to them. Additionally, other trade debt, which has had no activity for over four years and has now become uncollectible pursuant to state statute of limitations, was recaptured. The reductions from the original amounts owed and the settlement amounts resulted in a gain on debt restructuring of \$1,551,000 during the year ended December 31, 2000. Additional settlements resulted in a gain on debt restructuring of \$140,000 in fiscal 1999.

During 2001, we settled a lawsuit brought against us by Fontal International Ltd., the selling shareholder in this prospectus. The settlement requires us to issue, and register by March 31, 2002, 6,000,000 share of common stock at a cost of \$900,000, non-cash, exclusive of our legal fees. This expense is recorded as legal settlements for 2001. Legal settlements for 2000 and 1999 were \$75,000 and \$125,000, respectively, and related to matters involving claims made in 1996 and 1998 respectively. In the first half of 2002, we agreed to issue additional shares to Fontal based on the timing of the approval of this prospectus by the Securities and Exchange Commission.

During 2001, we incurred several non-recurring professional expenses of \$400,000 and the legal settlement of \$900,000 with respect to the Fontal International lawsuit for an increase in operating expense of approximately \$1,300,000. Without these charges, our net loss from operations would be \$2,382,000, an increase of \$372,000 or 18% from our \$2,010,000 loss from operations for the same period in 2000. We do not believe these types of expenses will occur in 2002. The increase in net loss is attributable to a number of factors as discussed previously in this Prospectus including the increased legal and accounting fees, the legal settlement with respect to the Fontal matter, increased research and development expenses and increased marketing and administrative expenses relating to further establishing ourselves as a key player in the mobile power conversion and management markets and to develop new systems for the stationary markets. We anticipate continued increases in engineering, production, and support personnel as we deem necessary to meet our current and prospective customer needs. The loss from operations for 2000 of \$2,010,000 represented an increase of \$1,001,000 or 99% from the \$1,009,000 loss in fiscal 1999, which excludes the recapture of approximately \$474,000 of prior warranty reserves.

Fiscal Year Ended December 31, 2000 v. Fiscal Year Ended July 31, 1999

-33-

Effective December 31, 1999 we changed our fiscal year end from July 31 to December 31. Because we do not experience seasonal fluctuations in revenues and expenses, all comparisons of year-to-year financial data are for the twelve months ended December 31, 2000 and the twelve months ended July 31, 1999.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

During the year ended December 31, 2000, operations required \$2,358,000 more in cash than were generated. We continued to encounter increased research and development costs, as well as increased sales and marketing and administrative expenses necessary for expansion. Accounts receivable increased by \$432,000 from \$572,000 as we continued to expand our product and customer bases and to increase sales. Customer Deposits decreased by \$102,000 from \$102,000 as we applied an advance payment from one of our customers for engineering services performed. Inventory increased by \$151,000 from \$256,000. The increase was due the purchase of raw materials for current development and production contracts.

Results of Operations

Net sales of \$2,883,000 for the twelve months ended December 31, 2000 increased \$109,000 or 4% from \$2,774,000 during the same period in 1999. Of total sales for the year ended December 31, 2000, \$2,662,900, or 92% were revenues realized on engineering contracts with Ecostar, the DOT, the Hyundai Group of Korea and other customers.

Cost of sales of \$2,013,000 for the year ended December 31, 2000 reflect an increase of \$553,000, or 37%, from \$1,460,000 during the same period ending July 31, 1999. During the fiscal year ended July 31, 1999, we sold a technology license to Hyundai Heavy Industries that did not have associated costs of sales and thus accounted for the lesser amount in 1999.

Cost of sales as a percentage of sales increased to 70% in fiscal 2000 from 53% in fiscal 1999. As stated, sales revenue for fiscal 1999 included a sale of a technology license of \$600,000. Excluding the sale of the technology license, cost of sales for fiscal 1999 was 67% of sales.

Research and development expense increased in the year ended December 31, 2000 to \$626,000 from \$499,000 in the year ended July 31, 1999. Product development costs incurred in the performance of engineering development contracts are charged to cost of sales for this contract revenue. Non-funded development costs are reported as research and development expense. Research and development expense increased in 2000 to \$626,000 from \$499,000 in fiscal 1999, an increase of \$127,000, or 25%.

Selling, general and administrative expense increased in the year ended December 31, 2000 to \$1,999,000 from \$1,141,000 for the similar period in 1999. The increase was due to increased sales, marketing, legal and travel expenses in relation to acquiring new business and creating alliances with several key manufacturers during 2000, including Gillig Bus, Capstone Turbine, Wright Bus of Ireland and EPT of Italy. Selling, general and administrative expense was \$1,141,000 in fiscal 1999, which declined by \$1,697,000, or 33%, from fiscal 1998, as we reduced spending and consolidated operations. During 1999 and 2000, we began to increase operations as we began to move from a pure research and development company to a more diversified development and production business.

-34-

For the year ended December 31, 2000, interest and financing fees decreased by \$550,000 to \$174,000, a decrease of 76%. The reduction was due to continued restructuring of long-term debt by forgiveness or conversion into equity. In fiscal 1999, interest and financing fees increased to \$724,000 from \$665,000 in 1998, an increase of 9%, due mainly to default interest rates becoming effective on certain notes payable. The forgiveness of \$4,300,000 of debt, formerly the Itochu debt, and the conversion of \$1,000,000 of Fontal debt, reduced interest expense significantly during 2000.

During the year ended December 31, 2000, several unsecured creditors agreed to

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

settle their trade debt claims for amounts less than the original debt owed to them. Additionally, other trade debt, which has had no activity for over four years and has now become uncollectible pursuant to state statute of limitations, was recaptured. The reductions from the original amounts owed and the settlement amounts resulted in a gain on debt restructuring of \$1,551,000 during the year ended December 31, 2000. Additional settlements resulted in a gain on debt restructuring of \$140,000 in fiscal 1999 and \$42,000 in 1998.

As a result of the foregoing changes in net sales, cost of sales, other costs and expenses and gain on debt restructuring, the net loss of \$459,000 increased 16% from the \$395,000 loss during the similar period in 1999. As noted previously, the increase in net loss is attributed primarily to efforts to establish our company as a key player in the mobile power conversion and management markets and to develop new systems for the stationary markets. The net loss for fiscal 1999 of \$395,000 decreased \$3,130,000 or 89% from the \$3,525,000 loss in 1998. These results reflect the successful shift from an electric vehicle conversion business to a mobile and stationary power electronics components developer and producer.

Fiscal Year Ended July 31, 1999 v. Fiscal year Ended July 31, 1998

During 1999, we continued to concentrate on the reduction of operating costs and outstanding debt. Our business activities focus primarily on the development of electric and hybrid electric drive-trains and related components, fuel cell systems, vehicle systems integration and the performance of various engineering contracts.

We received capital investments from Jagen, Pty, Ltd. in the amount of \$2,500,000 on June 4, 1999 and from Anthony Rawlinson in the amount of \$500,000 on July 30, 1999, which enabled us to further develop our hybrid drive systems as well as embark on other in-house funded research and development.

During 1999, we spent \$798,000 in cash on operating activities to fund the net loss of \$395,000, resulting from the factors explained in the following section of this discussion and analysis. Accounts receivable increased by \$560,000 as we increased the number of engineering contracts from Hyundai Motor Corporation and Hyundai Heavy Industries. Customer Deposits decreased by \$387,000 as we completed various contracts started in 1998 and moved toward a milestone based billing procedure. Inventory decreased by \$329,000, net of write-downs of \$36,000. The decrease was primarily caused by our reclassification of certain finished goods inventory to fixed assets to reflect the assets current usage. These items will now be depreciated over their useful lives.

Our operations during 1999 were financed primarily by the funds received on engineering contracts and partly on funds received from the sale of a technology license to Hyundai Heavy

-35-

Industries. In June and July 1999, we received \$3,000,000 from two investors, Jagen. Pty., Ltd. Of Australia and Anthony Rawlinson

Results of Operations

Net sales of \$2,774,000 for 1999 increased \$836,000 or 43% from \$1,938,000 in 1998. Two primary factors caused the increase. In 1999, we sold a technology license to Hyundai Heavy Industries for \$600,000. Second, we increased engineering, development and testing of electric and hybrid drive trains and related components in conjunction with Hyundai Motor Company and the U.S. Government through United States Postal Service, Defense Advance Research

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Project Agency and DOT programs. Of our total sales for 1999, \$1,954,000, or 70% were revenues realized on engineering contracts with the Defense Advance Research Project Agency, the Hyundai Group and other customers.

Cost of sales as a percentage of sales decreased to 53% in 1999 from 143% in 1998. Sales revenue for 1999 included a sale of a technology license of \$600,000. Excluding the sale of the technology license, cost of sales for 1999 was 67% of sales.

Research and development expense increased in 1999 to \$499,000 from \$445,000 in 1998, an increase of \$54,000, or 12%. While we reduced staff and cut costs in all areas, our focus continues to be centered on research and development. The product development cost incurred in the performance of engineering development contracts is charged to cost of sales for this contract revenue. Non-funded development costs are reported as research and development expense.

Selling, general and administrative expense of \$1,141,000 in 1999 continued to decline from \$1,697,000, or 33% from 1998, as we continued to reduce spending and consolidated operations.

In 1999, interest and financing fees increased slightly to \$724,000 from \$665,000 in 1998, an increase of 9% due mainly to a default interest rate on certain notes payable becoming effective.

During 1999, several unsecured creditors agreed to settle their trade debt claims for amounts less than the original debt owed to them. The reductions from the original amounts owed and the settlement amounts resulted in a gain on debt restructuring of \$140,000 in 1999. Additional settlements resulted in a gain on debt restructuring of \$42,000 in 1998.

As a result of the foregoing changes in net sales, cost of sales, other costs and expenses and gain on debt restructuring, the 1999 net loss of \$395,000 decreased \$3,130,000 or 89% from the \$3,525,000 loss in 1998. These results reflect a significant change in our operating condition. Our cost structure and operating conditions are now more in line with the sales volume and the scope of business.

Recent Accounting Pronouncements

The Financial Accounting Standards Board has recently issued the following Financial Accounting Standards (FAS):

-36-

FAS No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities", provides accounting and reporting standards for transfers and servicing of financial assets and extinguishments of liabilities. This Statement replaces FAS No. 125, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities". It revises the standards for accounting for securitizations and other transfers of financial assets and collateral and requires certain disclosures. This statement is effective for transfers and servicing of financial assets and extinguishments of liabilities occurring after March 31, 2001.

FAS No. 141, "Business Combinations", addresses financial accounting and reporting for business combinations and supersedes Accounting Principles Board Opinion No. 16. This Statement requires that all business combinations are to be accounted for using the purchase method of accounting. The provisions of this Statement apply to all business combinations initiated after June 30, 2001.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

FAS No. 142, "Goodwill and Other Intangible Assets", addresses financial accounting and reporting for acquired goodwill and other intangible assets. It addresses how intangible assets that are acquired individually or with a group of other assets (but not those acquired in a business combination) should be accounted for in financial statements upon their acquisition. This Statement also addresses how goodwill and other intangible assets should be accounted for after they have been initially recognized in the financial statements.

FAS No. 143, "Accounting for Asset Retirement Obligations", addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This Statement is effective for financial statements issued for fiscal years beginning after June 15, 2002.

FAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This statement is effective for financial statements issued for fiscal years beginning after December 15, 2001.

Implementation of the above financial accounting pronouncements are not expected to have a material effect on our financial position or results of operations.

BUSINESS

General

In July 2000, we changed our name to Enova Systems, Inc. from U.S. Electricar, Inc. We were incorporated in California on July 30, 1976.

We believe that we are a leader in the development and production of commercial digital power management systems. We are now producing, under contract with global vehicle and technology companies, digital power processing and energy management enabling technologies for electric, hybrid electric, and fuel cell powered vehicles. These power management technologies are now being applied to commercialization of fuel cell power generation for stationary non-automotive applications. Our business activities continue to be focused on the development of electric and hybrid electric drive systems and related components, fuel cell power management systems for both mobile and stationary power

-37-

applications, vehicle systems integration and the performance of various engineering contracts.

Our fiscal year ends December 31. All year references refer to fiscal years.

Products

Our focus is digital power management, power conversion, and system integration. Our software, firmware and hardware manage and control the power that drives a vehicle or device. They convert the power into the appropriate forms required by the vehicle or device, whether DC to AC, AC to DC or DC to DC, and they manage the flow of this energy to protect the battery, the vehicle or device, and the driver or operator. Our systems work "from drive train to drive wheel" for both vehicle and stationary applications.

The latest state-of-the-art technologies such as hybrid vehicles, fuel cell and microturbine based systems, and stationary power generation all require some type of power management and conversion mechanism. We supply these essential

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

components. Our drive train systems work with any kind of fuel/power source, from electric to hybrid to fuel cell to turbine, and they are essential components for any vehicle, system or device that uses power.

We are moving to expand our product base into new markets outside of the traditional electric and hybrid-electric automotive fields. Key areas in which we have begun to penetrate include energy management in the telecommunications industry, distributed generation in the utility industry, and stand-by/backup power generation in the commercial electronics industry. All three of these markets can be served with our existing energy management and power control products. We have entered into agreements or begun discussions with various alternative power generation manufacturers such as Capstone Turbine Corporation and UTC Fuel Cells, as well as others. We currently have a joint marketing agreement with Capstone for sales of our combined systems. UTC Fuel Cell purchases components on a purchase order basis. Other companies such as Pentadyne Power Corporation and Maxwell Technologies have entered into Memorandums of Understanding with us which define, in general terms, systems and market segments in which our companies could potentially produce and sell components. We believe our enabling technologies will prove beneficial to these types of companies in their strategies to bring these new power systems to commercialization, however, we can make no assurance that such agreements, if made, will result in a successful expansion of our product base in these new markets.

We have embraced fuel cell technology and we have begun to develop various power management and control systems to enable fuel cell manufacturers and their ancillary industries to achieve greater efficiencies from their systems. These systems will also provide added reliability and safety by monitoring, adjusting and reporting on operation of the unit.

Panther(TM) Electric and Hybrid-Electric Drive Systems

-38-

The Panther(TM) electric drive system provides all the functionality one would find under the hood of an internal combustion gas or diesel engine powered vehicle. The Panther(TM) system consists of an enhanced electric motor and the electronic controls that regulate the flow of electricity to and from the batteries at various voltages and power to propel the vehicle. In addition to the motor and controller, the system includes a gear reduction/differential unit. The system is designed to be installed in a "drop in," fully integrated turnkey fashion, or on a modular, "as-needed" basis.

Our family of light-duty drive systems includes 30kW, 60kW, 90kW all-electric drives, 90kW fuel cell powered series-hybrid drive, and a 10kW parallel-hybrid drive unit. Our family of heavy-duty electric drive systems includes a 120kW all-electric drive, a 120kW turbine powered series-hybrid drive, and a new 240kW turbine powered series-hybrid drive system.

We currently market these systems to automobile and bus manufacturers as discussed in detail elsewhere in this prospectus. Prices for electric and hybrid electric drive systems vary based on the configuration of the system and the number of units purchased, however, on average our systems list for \$12,000 to \$25,000 for light duty systems and \$20,000 to \$75,000 per unit for heavy duty drive systems.

Electric Drive Motors

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

The electric drive unit is essentially an electric motor with additional features and functionality. The motor is liquid-cooled, environmentally sealed, designed to handle automotive shock and vibration, and includes parking pawl, which stops the vehicle when the driver parks the car. It also permits regenerative braking to provide power recovery, in which the mechanical energy of momentum is converted into electrical energy as the motor slows during braking or deceleration. The optional gear reduction unit takes the electric motor's high rpm and gears it down to the lower rpm required by the vehicle's conventional drive shaft. As the rpm goes down, the torque of the electric motor increases.

The Panther(TM) drive system exclusively utilizes induction AC motors for their high performance, power density, robustness and low cost. The AC drive system is scaleable and can be customized for different applications. Due to the large operating range that the propulsion systems offer, all parameters can be optimized; the user will not have to choose between acceleration, torque or vehicle speed.

Electric Motor Controllers

The controller houses all the components necessary to control the powering of a vehicle, in one easy-to-install package. Our main component is an inverter, which converts DC electricity to AC electricity. We also offer optional controllers for the air conditioning, power steering and heat pump, 12VDC/24VDC DC-to-DC converter for vehicle auxiliary loads such as cell phones, radio, lights, and a 6.6kW AC-to-DC on-board conductive charger which allows for direct 110 VAC or 220 VAC battery charging. These are located in the same housing as the controller, thus extra interconnects are not required. This approach simplifies the vehicle wiring harness and increases system

-39-

reliability.

Using our proprietary Windows(TM) based software package, vehicle interfaces and control parameters can be programmed in-vehicle. Real-time vehicle performance parameters can be monitored and collected.

Hybrid Drive Systems

Our Panther(TM) hybrid-electric drive systems are based on the component building blocks of the electric drive family, including the motor, controller and optional components. As an example, the 120/30kW series hybrid system uses the 120kW electric drive components to propel the vehicle, and uses a 30kW microturbine to generate power while the vehicle is in operation. This synergy of design reduces the development cost of our hybrid systems by taking advantage of existing designs. Accessories for these drives include battery management, chargers and 12-volt power supplies, as with the all electric drive family.

Our hybrid systems are designed to work with a variety of hybrid power generation technologies. In our 120/60kW hybrid system, an internal combustion gas or diesel engine connected to a motor and motor controller performs the power generation. Other power options include liquid fueled turbines, such as the Capstone system, fuel cells, such as the UTC Fuel Cells system, or many others. In all of these examples, our battery management system provides the power management to allow for proper power control.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Power Management and Accessory Products

We currently sell a number of power management and power conversion components which may or may not be used in conjunction with our drive systems. These components vary in price based upon systems configuration and quantities purchased, but on average range in price from \$2,000 to \$5,000 per unit based on our current pricing.

Battery Care Unit

We place a great amount of focus on our power management systems. Our BCU II battery care unit monitors, manages, protects, and reports. It controls and manages battery performance, temperature, voltage and current to avoid harm to the batteries, to the entire system, and to the driver, operator and passengers. It also allows for monitoring for service to the battery and drive system. This battery management system is capable of providing communication to both inductive and conductive chargers simultaneously and managing the on-board and off-board charging systems with multiple technologies. The versatility of this system allows us to adapt the hardware and software for a variety of power sources such as batteries, turbines and fuel cells.

-40-

Our BCU II monitors, manages, protects, and reports on the condition of the vehicles battery pack. It controls and manages battery performance, temperature, voltage and current to avoid harm to the batteries, to the entire system, and to the driver, operator and passengers. It also allows for monitoring for service to the battery and drive system and also reports state-of-charge, amp hours and kilowatt-hours.

The BCU II monitors the battery pack voltage and 28 additional individual voltages with a range of 0 to 18vDC. Optional expansion modules allow 28 additional inputs per module, with up to 16 modules permitted. The BCU II has eight user-programmable outputs and four user-programmable inputs to allow full integration into the vehicle. These can be used to customize input and output parameters, and to provide for other custom monitoring and battery pack control.

The BCU II directly interfaces with our Panther(TM) and other drive systems, and also controls the safety disconnect unit. It is capable of supporting any battery technology, and provides each type with optimized charging and protection algorithms. An internal real-time clock allows the BCU II to wake up at user-specified times to initiate battery charging or pack monitoring. A precision shunt allows it to offer a wide dynamic range for monitoring charging and motoring current, without errors commonly associated with other types of sensors.

The non-volatile built-in memory allows the BCU II to update, store and report key battery pack parameters such as amp hours, kilowatt-hours and state of charge. Using our proprietary Windows(TM)-based diagnostic software, the BCU II control parameters can be programmed in-vehicle. Additionally, battery performance can be monitored in real-time. Reports can be output to a laptop computer.

Hybrid Control Unit

We have reconfigured our BCU II to perform the critical role of hybrid controller. Our hybrid control unit continuously monitors the condition of the battery pack through communications with the BCU II battery care unit, monitors the driver commands through communications with the motor controller, and the

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

state of the hybrid generator. Based upon the data received, the hybrid control unit provides continuous updates to the hybrid generator with instructions on mode of operation and power level. This innovative control loop ensures that the entire system is optimized to provide quick response to driver commands while providing the best possible system efficiency.

Safety Disconnect Unit

The safety disconnect unit is under the control of the BCU II battery care unit, and allows vehicle systems to gracefully connect and disconnect from the battery pack when necessary to prevent damage or harm. It also disconnects the battery pack during charging, protects it from surges, and constantly verifies that the battery pack is isolated from the vehicle chassis. In the event a ground isolation fault is detected, the BCU II commands the safety disconnect unit to break the battery connection. The safety disconnect unit is available in two configurations to match the requirements of the drive

-41-

systems.

Fast Charger

We have also developed a 40kW rapid charger for electric vehicles, which reduces charging time from six to eight hours to 20 to 30 minutes. The charger was initially developed in conjunction with Hyundai for their electric vehicles. The Fast Charger is also ideal for small or shuttle buses, trams and trucks. We are currently selling rapid chargers to Eco Power Technology of Italy. This unit lists for \$40,000 to \$55,000 per unit based on volumes.

Fuel Cell Power Conditioning Unit

We have developed and are now producing a 30kW bi-directional fuel cell power conditioning system. This system has been designed to meet the demands of an automotive fuel cell propulsion system. This unique unit, not much larger than a conventional briefcase, provides a transparent interface between the fuel cell or microturbine, the battery pack, accessory loads, and the output load. Fast response time allows the output load to be serviced without interruption while the fuel cell or turbine ramps up.

This unit is designed to interface directly with the master controller of the vehicle over a CAN bus. Other communications protocols supported are SAE J-1850, RS-232, and RS-485. This proprietary package allows all key parameters of the Power Conditioner to be monitored and control boundaries to be adjusted 60kW ICE Generator Unit.

50kW ICE Generator Unit

We provide a complete 50kW internal combustion engine generator set. This unit is powered by a 4-cylinder direct injection diesel engine and is controlled over the common CAN bus shared with the rest of the Panther(TM) product line. The same hybrid control unit that controls the Capstone microturbine in our other series hybrid configurations provides power command, start command, and stop commands.

Fuel Cell Management Unit

We have added a fuel cell control unit to broaden our market in the power

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

management field. This unit is designed to manage fuel cell powered systems whether stationary or mobile, such as in vehicles. The fuel cell control unit can be adapted to regulate the input and output to and from the fuel cell as well as regulate temperature and communications. We continue to develop our current systems for new products and markets.

We have also reconfigured our battery management unit to perform the functions required to monitor, manage, and report on the status of a fuel cell stack. This new units currently being used by UTC Fuel Cells as a management systems in their fuel stack products.

An internal real-time clock allows the fuel cell control unit to wake up at user-specified times to initiate battery charging or pack monitoring. A precision shunt allows it to

-42-

offer a wide dynamic range for monitoring charging and motoring current, without errors commonly associated with other types of sensors. The non-volatile RAM allows the unit to update, store and report key battery pack parameters such as amp hours, kilowatt-hours and state of charge. With our proprietary Windows(TM)-based diagnostic software, the fuel cell control unit control parameters can be programmed in-system. Additionally, fuel cell performance can be monitored in real-time and output to a laptop computer.

Distributed Power Generation for Industrial/Commercial/Residential Applications

Our distributed generation products are virtually identical in system configuration to that of a series hybrid vehicle, including a controller and battery management. For this market segment, we will provide DC-DC and DC-AC power conversion components to convert power supplied by batteries, fuel cells, generators and turbines to AC power that will be used by the end customer. Additionally, our BCU II battery care unit will provide power management functions to control the entire system. The main difference is that the 3-phase AC power typically supplied to the motor for propulsion power is, in this case, sent to the customer to supply power for their household or business.

These products are custom designed for the customer's specific application requirements. Currently, we are finalizing a development and production program with a major petroleum company for process control. Other systems are available for sale requiring minimal reconfiguration for customer requirements.

Back-Up Power for Telecommunications

As in the distributed generation market, telecommunications products are virtually identical in system configuration to a series hybrid vehicle, including a controller and battery management unit. For this market segment, we intend to provide DC-DC and DC-AC power conversion components to convert power supplied by batteries, fuel cells, generators, and turbines to AC power that will be used by the communications link. The BCU II battery care unit will provide power management functions to control the entire system. When the grid goes down, the AC power typically supplied to the motor for propulsion power is, in this case, sent to the communications link (or router) to supply power as a backup. We are currently seeking customers in the telecommunication equipment and battery manufacturing industries for these products. We anticipate that this market will open to our products in 2003 based upon current industry trends, however, we can make no assurance that this will occur.

Company Operations

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

In 1998, we restructured our top management, realigned our product base and concentrated on the reduction of overall company operating costs. We closed facilities, streamlined operations, and developed new product lines. During 2000 and 2001, we increased our product line and began to penetrate new markets for our products. Accordingly, at December 31, 2001, we had increased our headcount to 39 employees and 6 independent contractors from 35 in 2000.

-43-

During 1999, we concentrated on creating new business in the mobile power management and conversion markets as well as reducing operating costs and outstanding debt. Our business activities focused on the development of electric and hybrid electric drive trains and related components, fuel cell systems, vehicle systems integration and the performance of various engineering contracts. We completed several key contracts with the U.S. Government's Defense Advanced Research Project Agency and the Department of Transportation, including the analysis of a new plastic lithium ion vehicle battery concept, testing of advanced vehicle batteries and development of an airport electric passenger tram system. We have enhanced our relationship with Hyundai, the world's seventh largest automobile manufacturer, with several engineering contracts to design, develop and test electric and hybrid electric drive systems and related products. We completed development of an advanced charging unit and a parallel hybrid production vehicle, and continue to produce the family of Panther(TM) drive systems for their electric vehicles. Our Company has also developed a high power charger for use with our drive systems. Hyundai has adapted a customized version of the Panther(TM) 60kW for their production electric vehicle, the Santa Fe sports utility vehicle.

Beginning in 2000, we started working with Ecostar Electric Drive Systems, a joint venture of Ford, Daimler Chrysler and Ballard Power to develop and manufacture low voltage electric drive system components for use in Ford's Global Th!nk City. Ecostar has announced that an all-electric vehicle is scheduled to be introduced in early 2002 for markets in North America. We are designing and manufacturing the electronics for the drive system as well as certain auxiliary components. The final prototype systems are currently undergoing pre-production testing and validation in the Ford Th!nk vehicle. We continue to develop our relationship with Hyundai, Ecostar and other Original Equipment Manufacturers and Tier-One suppliers for sales of our automotive products. We offer our modular drive systems to such manufacturers and other customers. These drive systems have been installed in various vehicles operating in North America, Europe and Asia.

In 2001, we began supplying drive systems to manufacturers such as Eco Power Technology, Tomoe and Moria as discussed below and in other sections of this Prospectus. We also commenced new development programs with automotive and transit manufacturers both domestically and internationally, as well as completing various research and development programs sponsored by the U.S. Government and private corporations such as Hyundai Motor Company. These programs are discussed more fully below.

For marketing our larger drive systems, we are discussing sales of the system to various transit bus manufacturers in the U.S. and Europe, to develop and manufacture series hybrid electric transit buses utilizing our 240kW hybrid drive system. Additionally, we are completing a development, manufacturing and marketing agreement with Wrights Environment, a division of Wrights Bus, one of the largest low-floor bus manufacturers in the United Kingdom, to develop, manufacture and integrate pure electric and hybrid electric drive systems into

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Wrights' low floor, mid-size buses for sale in the United Kingdom and the European Continent. In January 2001, we received an order for a Panther(TM) 120kW hybrid drive system from Wrights which utilizes the Capstone Turbine Corporation microturbine as the primary power source.

We continue to expand our markets by creating alliances with other component suppliers. Capstone Turbine Corporation has recently teamed with us to develop and market hybrid electric drive systems using Capstone's microturbine in conjunction with our power

-44-

management and drive systems. We currently utilize Capstone's microturbine in our drive systems for Eco Power Technology of Italy, as well as for Wright's Bus in the United Kingdom.

Our engineering contracts with DARPA and the DOT continue to progress on schedule. These programs include the development of an airport electric passenger tram system for the Honolulu Airport and an EV commercialization program for the State of Hawaii. Our contract with the U.S. Department of Transportation to design and test this tram system utilizes the Panther(TM) 120kW drive system. The tram was developed in conjunction with APS, an electric bus manufacturer in Oxnard, California. This tram, capable of carrying 100 passengers, was delivered in the 1st quarter of 2002 to the Honolulu, Hawaii Airport for test and evaluation. We intend to market this tram system to international markets for application to other airports, national and recreational parks and other high capacity transit applications. Another joint DOT program, the Hawaii/Hyundai commercialization program, which we established, has been enhanced to include the testing of 15 Hyundai Santa Fe electric vehicles in Honolulu, Hawaii prior to their entry into the U.S. markets. We have also begun work on an electric trolley for the Hawaii market in conjunction with the DOT and E Noa, a manufacturer and operator of stand-alone trolleys in Hawaii. Our Hawaii operations in Honolulu are both a development and maintenance installation for various DARPA/DOT programs. The facility also maintains the electric vehicle fleets for different state and local government agencies as well as private institutions.

We continue to further our relationship with Hyundai through engineering contracts to design, develop and test electric and hybrid electric drive systems and related products. We have completed development work on Hyundai's parallel hybrid production vehicle and a series hybrid electric drive system. These hybrid systems are slated to be integrated into Hyundai's new Santa Fe sport utility vehicle. Hyundai has adapted a customized version of the Panther(TM) 60kW for their production electric vehicle and intends to utilize our hybrid drive system and battery management for their next generation alternative fuel vehicles. We have also developed a high power fast charger for use with our drive systems in conjunction with Hyundai.

We view stationary power applications of our power management systems as an important new area for product development. In the stationary power management field, we are developing applications for our products in the telecommunications and distributed generation markets. We believe our approach of providing the enabling technology in power management and conversion to power generation companies is key to early access to these markets. Our joint marketing and development efforts with Capstone Turbine Corporation, Avestor and UTC Fuel Cells have the potential to assist us in penetrating these markets. As discussed earlier, we are now producing and selling an advanced version of our BCU-II

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

battery care unit and fuel cell care unit for use with fuel cells in both stationary and mobile systems, starting with UTC Fuel Cells and the Institute for a Sustainable Environment Research Lab.

We continue to seek new investment capital to fund research and development and create new market opportunities. We received capital investments of \$1,000,000 each from Perla Blanca Investments and Kafig Pty, Ltd for the purchase of 3,333,333 shares of common stock each during the twelve months ended December 31, 2000. In early 2001, we retained Merrill Lynch as our investment advisor to pursue equity financing options and other strategic alternatives. We intend to vigorously pursue additional equity capital in order to fund new

-45-

product development. In July 2001, Anthony Rawlinson exercised warrants to purchase 8,333,334 shares of our common stock at \$0.06 per share for a total of \$500,000.

Debt Restructuring

We completed our balance sheet restructuring during 2001. Overall, we have reduced outstanding indebtedness and liabilities by approximately \$10,000,000 since we began our restructuring program in 1999. We have also been reducing our outstanding past due accounts payable and other accrued liabilities. At December 31, 2001, we have eliminated all of our antecedent accounts payable and non-current accrued liabilities.

Environmental Initiatives and Legislation

Federal legislation was enacted to promote the use of alternative fuel vehicles, including electric vehicles. Several states have also adopted legislation that sets deadlines for the introduction of zero emission vehicles. The State of California delayed the mandated introduction of zero emission vehicles from 1998 to 2003 and established a required percentage of zero emission vehicles and new hybrid-electric vehicles for 2003 at 10% of total new vehicle sales in California from the six major automobile manufacturers. The State of California estimates that a combination of approximately 100,000 electric and hybrid electric vehicles will be required to meet the State's 2003 mandate. The California Air Resources Board recently confirmed their commitment to these percentages, adding that hybrid-electric vehicles may offset a portion of the required percentage. We have taken an aggressive position in diversifying our product base to include various hybrid-electric platforms in our product mix. The U.S. Department of Energy also modified their rules governing how state fleets and utility fleets must comply with the Energy Policy Act of 1992 on alternative fuel transportation programs.

Strategic Alliances, Partnering and Technology Developments

We continue to adapt to the ever-changing environment of alternative power markets for both stationary and mobile applications. Originally focusing on pure electric drive systems, we are now positioned as a global supplier of drive systems for electric, hybrid and fuel cell applications. We are now entering stationary power markets with our power management systems and intend to develop other systems to monitor and control the complex fuel cell and ancillary device systems being developed for distributed generation and mobile applications.

We also continue to seek and establish alliances with major players in the automotive, stationary power and telecommunication fields. For instance, we are partnering with the Hyundai Group of Korea in the development of advanced drive-train technology and related systems. Additionally, we have begun to

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

partner with Ford and Ballard Power on other automotive programs and are looking to further develop these relationships. We continue our strategy as a "systems integrator" by establishing relationships to utilize other independently developed technologies such as those provided by UTC Fuel Cells and Capstone Turbine Corporation. We have implemented our plans to outsource manufacturing of our components to companies such as Hyundai Heavy Industries, Ricardo, Hyundai Autonet and other Asian manufacturers. We believe that our competitive advantage is our ability to identify, attract and integrate the latest technology available to produce state of the art products at competitive prices.

-46-

Our products are "production-engineered," meaning they are designed so they can be commercially produced: all formats and files are designed with manufacturability in mind, from the start. For the automotive market, we design our products to QS9000 manufacturing and quality standards. Our redundancy of systems, robustness of design, and rigorous quality standards result in high performance and reduced risk. For every component and piece of hardware, there are detailed performance specifications. Each piece is tested and evaluated against these specifications, which enhances the value of the systems to original equipment manufacturing customers.

We perform low-volume production and assembly and out source mass production. Outsourcing enables us to keep our capital investment to a minimum, reducing expenditures for hardware, installation and training, and it allows us to avoid the problems of manufacturing equipment obsolescence. Outsourcing also enables us to search out and work with a number of the best QS 9000-certified manufacturers worldwide. This strategy ensures that our manufacturing customers have the highest confidence in our products, and receive the highest-quality products.

Competitive Conditions

The competition to develop and market electric, hybrid and fuel cell powered vehicles has increased during the last year and we expect this trend to continue. The competition consists of development stage companies as well as major U.S. and international companies. Our future prospects will be highly dependent upon the successful development and introduction of new products that are responsive to market needs and can be manufactured and sold at a profit. There can be no assurance that we will be able to successfully develop or market any such products.

The development of hybrid-electric and alternative fuel vehicles, such as compressed natural gas, fuel cells and hybrid cars poses a competitive threat to our markets for low emission vehicles but not in markets where government mandates call for zero emission vehicles. We are involved in the development of hybrid vehicles and fuel cell systems in order to meet future requirements and applications.

Various providers of electric vehicles have proposed products or offer products for sale in this emerging market. These products encompass a wide variety of technologies aimed at both consumer and commercial markets. The critical role of technology in this market is demonstrated through several product offerings. As the industry matures, key technologies and capabilities are expected to play critical competitive roles. Our goal is to position itself as a long term competitor in this industry by focusing on electric, hybrid and fuel cell powered drive systems and related sub systems, component integration, technology application and strategic alliances. The addition of new strategies to penetrate stationary power markets with current technologies will assist in creating a more diversified product mix. We believe that this strategy will enhance our

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

position as a power management and conversion components supplier to both the mobile and stationary power markets.

Research and Development

We believe that timely development and introduction of new technology and products is essential to maintaining a competitive advantage. We are currently focusing our development efforts primarily in the following areas:

-47-

- o Power control and drive systems and related technologies for vehicle applications;
- o Stationary power management and conversion and related technologies;
- o Heavy duty drive system development for shuttle and transit buses;
- o Systems integration of these technologies;
- o Technical and product development under DARPA/DOT and Hyundai Group Contracts; and
- o Original Equipment Manufacture technical and product development.

For the year ended December 31, 2001 and 2000, we spent \$879,000 and \$626,000, respectively, on internal research and development activities. For the five months ending December 31, 1999 and the fiscal years ended July 31, 1999 and 1998, we spent \$262,000, \$499,000 and \$445,000, respectively, on internal research and development activities. We are continually evaluating and updating the technology and equipment used in developing each of our products. The power management and conversion industry utilizes rapidly changing technology and we will endeavor to modernize our current products as well as continue to develop new leading edge technologies to maintain our competitive edge in the market.

Intellectual Property

We currently hold one patent for crash management safety, which was originally issued in 1997, and we have submitted applications for four additional patents and several trademarks or service marks in the United States. Our patent for crash management safety expires in October 2017. We continually review and append our protection of proprietary technology. The status of patents involves complex legal and factual questions, and the breadth of claims allowed is uncertain. Accordingly, we can make no assurance that any patent applications we file will result in patents being issued. Moreover, we can make no assurance that third parties will not assert claims against us with respect to existing and future products. Although we intend to vigorously protect our rights, we can make no assurance that these measures will be successful. In the event of litigation to determine the validity of any third party claims such litigation could result in significant expense. Additionally, the laws of certain countries in which our products are or may be developed, manufactured or sold may not protect our products and intellectual property rights to the same extent as the laws of the United States.

Employees

As of May 17, 2002, we had 39 employees, of whom 38 are full-time and 1 part-time. Additionally, we employ six individuals as independent contractors, engaged on an hourly basis, two of whom are domiciled in South Korea. The

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

departmental breakdown of these individuals includes 3 in administration, 1 in sales, 30 in engineering and research and development, and 11 in production.

Facilities

-48-

Our corporate offices are located in Torrance, California, in leased office space of approximately 20,000 square feet. This facility houses our various departments, including engineering, operations, executive, finance, planning, purchasing, investor relations and human resources. This lease terminates in February 2003. The monthly lease expense is \$13,500. We also have a leased office in Hawaii, which is rented on a month to month basis at \$1,500 per month.

Legal Proceedings

We may from time to time become a party to various legal proceedings arising in the ordinary course of business. However, we are not currently a party to any material legal proceedings.

We have settled a lawsuit brought against us by Fontal International, Ltd. in June 2000, which was filed in the United States District Court, Central District of California as previously disclosed in our March 31, 2000 Form 10-Q. The suit alleged breach of contract with respect to certain warrants to purchase 10,833,332 shares of our common stock. The settlement agreement required us to issue 6,000,000 shares of common stock which were to be registered and freely tradable on, or before, March 31, 2002. As it became apparent that, due to circumstances beyond our control, we would not be able to provide registered shares by that date, we entered into an agreement with Fontal granting them an additional (i)100,000 registrable shares of common stock if the registration statement of which this prospectus is a part is not approved by the Securities and Exchange Commission on or before April 30, 2002; (ii) 100,000 registrable shares of common stock if registration is not approved by the SEC on or before May 31, 2002; (iii) 100,000 registrable shares of common stock if registration is not approved by the SEC on or before June 15, 2002; and (iv) 100,000 shares of common stock if registration is not approved by the SEC on or before June 30, 2002.

-49-

MANAGEMENT

The following table sets forth certain information regarding our directors and executive officers as of December 31, 2001.

Name	Age	Position
-----	---	-----
Anthony N. Rawlinson	47	Chairman of the Board
Carl D. Perry	69	President, Chief Executive Officer, Chief Financial Officer and Secretary
Malcolm R. Currie, Ph.D. (1)	72	Director
Donald H. Dreyer (2)	64	Director

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

John J. Micek III (2)	49	Director
Edwin O. Riddell (1)	59	Director
James M. Strock	46	Director

- (1) Member of Compensation Committee
- (2) Member of Audit Committee

Anthony N. Rawlinson, Chairman of the Board

Mr. Rawlinson was appointed Chairman in July 1999. Since 1996, Mr. Rawlinson has been Managing Director of The Global Value Investment Portfolio Management Pte. Ltd., a Singapore based international fund management company managing discretionary equity portfolios for institutions, pension funds and clients globally. Mr. Rawlinson has more than twenty years experience in international fund management. Mr. Rawlinson is a specialist in analysis and investment in high technology companies. Mr. Rawlinson is currently Chairman of Matrix Oil NL, an Australian publicly listed company with Indonesian oil and gas interests. He is also a director of Cardsoft Inc., a software company with secure Java based solutions for mobile phones and handheld devices.

Carl D. Perry, Director, Chief Executive Officer, President

Mr. Perry was elected Chairman, Chief Executive Officer, Acting Chief Financial Officer and Secretary in November 1997. Mr. Perry served as a director and as an Executive Vice President from 1993 until 1997. In 1997, Mr. Perry was elected as Chairman and Chief Executive, and was elected President in June 1999. In July 1999, Mr. Perry resigned his position as Chairman to allow Mr. Anthony Rawlinson to become Chairman. Previously, he was Executive Vice President of Canadair Ltd., Canada's largest aerospace corporation responsible for all worldwide joint ventures, strategic planning and global operations. He was also Executive Vice President of Howard Hughes Helicopter Company, now known as Boeing Helicopter Company, where he was responsible for all general management and worldwide operations. Mr. Perry has a B.S. in Political Science from the University of California at Los Angeles.

-50-

Malcolm R. Currie, Ph.D., Director

Dr. Currie was re-elected to our board of directors in 1999. Dr. Currie had served as a director from 1995 through 1997. Since 1994, he has served as Chairman of Currie Technologies, a developer of electric transportation. From 1986 until 1992, Dr. Currie served as Chairman and Chief Executive Officer of Hughes Aircraft Co., and from 1985 until 1988, he was the Chief Executive Officer of Delco Electronics. His career in electronics and management has included research with many patents and papers in microwave and millimeter wave electronics, laser, space systems, and related fields. He has led major programs in radar, commercial satellites, communication systems, and defense electronics. He served as Undersecretary of Defense for Research and Engineering, the Defense Science Board, and currently serves on the boards of Inamed Corporation, Investment Company of America, and LSI Logic. He is President of the American Institute of Aeronautics and Astronautics, and is a Member (former Chairman) of the Board of Trustees of the University of Southern California.

John J. Micek III, Director

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Mr. Micek was elected to our board of directors in 1999. Mr. Micek served as our Vice President, General Counsel, and Secretary from March 1994 to March 1997. From 1997 to the present, he has been Managing Director of Silicon Prairie Partners, L.P., a venture fund. From 1987 to 1994, Mr. Micek held several positions with Armanino Foods of Distinction, Inc., including General Counsel and Chief Financial Officer from 1987 to 1988, Vice President from 1989 to 1994, and director from 1988 to 1989. Mr. Micek is also a practicing attorney specializing in corporate finance and business development in Palo Alto, California. He is a board member of Universal Warranty and sits on the boards of Burst.com, Inc. and Pelion Systems, Inc.

Donald H. Dreyer, Director

Mr. Dreyer was elected a director in 1997. Mr. Dreyer is President and CEO of Dreyer & Company, Inc., a consultancy in credit, accounts receivable and insolvency services which was established in 1990. Mr. Dreyer has served as Chairman of the Board of Credit Managers Association of California during the 1994 and 1995 term, and continues to serve as a member of the Advisory Committee of that organization. Mr. Dreyer is currently the co-Chair of the Creditors Committees' Subcommittee of the American Bankruptcy Institute and is a member of the Western Advisory Committee of Dun & Bradstreet, Inc. [He is also a member of the Board of the National Association of Credit Management.]

Edwin O. Riddell, Director

Mr. Riddell has been one of our directors since 1995. From March 1999 to the present, Mr. Riddell has been President of CR Transportation Services, a consultant to the electric vehicle industry. From January 1991 to March 1999, Mr. Riddell served as Manager of the Transportation Business Unit at the Electric Power Research Institute in Palo Alto, California, and from 1985 until November 1990, he served with the Transportation Group, Inc. as Vice President, Engineering, working on electric public transportation systems. From 1979 to 1985, he was Vice President and General Manager of Lift-U, Inc., the leading manufacturer of handicapped wheelchair lifts for the transit industry. Mr. Riddell has also worked with Ford, Chrysler, and General Motors in the area of auto design (styling), and has worked as a member of senior management for a number of public transit vehicle manufacturers. Mr.

-51-

Riddell has been a member of the American Public Transportation Association's (APTA) Member Board of Governors for over 15 years, and has served on APTA's board of directors. Mr. Riddell was also Managing Partner of the U.S. Advanced Battery Consortium.

James M. Strock, Director

Mr. Strock was elected a Director of Enova in June, 2000. From 1991-1997, Mr. Strock served in Governor Pete Wilson's cabinet as California's first Secretary for Environmental Protection. He led an organization with an annual budget of more than \$800 million with 4,000 employees. The Agency includes many of the world's leading environmental improvement programs relating to air and water quality, toxics and pesticide regulation, and solid waste. From 1989 until 1991, Mr. Strock served in President Bush's subcabinet as Assistant Administrator for Enforcement (chief law enforcement officer) of the U.S. Environmental Protection Agency. Currently, he is principal of jamesstrock.com, inc., a San Francisco firm providing consulting, communications and mediation services. Mr. Strock is a graduate of Harvard College and Harvard Law School, and is a member of the Council on Foreign Relations. He is the author of Reagan on Leadership: Executive Lessons from the Great Communicator, and Theodore Roosevelt: Executive

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Lessons from the Bully Pulpit.

There are no family relationships among any of the directors or executive officers of our company.

Board of Directors, Committees and Compensation

Each of the directors is elected to serve a one-year term and until his successor if duly elected and qualified. The authorized number of directors is currently fixed at seven. The holders of the Series B Stock, voting as a separate class, are entitled to elect two directors. The holders of the Series A Stock and the common stock, voting together as a single class, are entitled to elect the balance of the directors. See "Description of Capital Stock."

The Board currently has two committees: the Compensation Committee and the Audit Committee. The Compensation Committee currently consists of Mr. Edwin Riddell and Dr. Malcolm Currie. Its functions are to establish and apply our compensation policies with respect to our executive officers, and to administer our stock option plans. The Audit Committee currently consists of Messrs. Donald Dreyer and John Micek. The Audit Committee recommends engagement of the independent auditors and is primarily responsible for approving the services performed by the independent auditors and for reviewing and evaluating the our accounting principles and system of internal accounting controls.

In September 1999, our board of directors unanimously approved a compensation package for outside directors consisting of the following: for each meeting attended in person, each outside director is to receive \$1,000 in cash and \$2,000 of stock valued on the date of the meeting at the average of the closing ask and bid prices; for each telephonic board meeting, each outside director is to receive \$250 in cash and \$250 of stock valued on the date of the meeting at the average of the closing ask and bid prices; for each meeting of a board committee attended in person, the committee chairman is to receive \$500 in cash and \$500 of stock valued on the date of the meeting at the average of the closing ask and bid prices. All directors are reimbursed for expenses incurred in connection with attending board and committee meetings.

-52-

Executive Compensation

The following table sets forth all compensation earned by our company's Chief Executive Officer and each of the other most highly compensated executive officers whose annual salary and bonus exceeded \$100,000 for the years ended December 31, 2001, 2000 and 1999 (collectively, the "Named Executive Officers"). Mr. Carl D. Perry is the sole executive officer of Enova whose salary currently exceeds \$100,000.

	Year	Salary (\$)	Bonus (\$)	Long ----- Secur Optio (#) -----
	----	-----	-----	
Carl D. Perry, Chief Executive Officer, Chief Financial Officer, President and Secretary	2001	\$136,118	\$ 30,000	0
	2000	\$128,170	\$ 0	0
	1999	\$ 75,000	\$ 0	0

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Option/SAR Grants

No grants of stock options or stock appreciation rights ("SARs") were made during fiscal 2001 to the Named Executive Officers.

Option Exercises and Option Values

The following table sets forth information concerning option exercises during 2001, and the aggregate value of unexercised options as of December 31, 2001, held by each of the Named Executive Officers:

AGGREGATED OPTION/SAR EXERCISES IN LAST FISCAL YEAR AND FY-END OPTION/SAR VALUES

Name	Shares Acquired On Exercise (#)	Value Realized (\$)	Number of Securities Underlying Unexercised Options/SARs At Fiscal Year-End Exercisable/ Unexercisable (#)
----	-----	-----	-----
Carl D. Perry			1,200,000/0

(1) Calculated on the basis of the average of the high bid and low ask prices of the Common Stock on December 31, 2001 of \$0.16 per share, minus the exercise price.

Stock Option Plans

A general description of the principal terms of the 1996 Plan are set forth below. This description is qualified in its entirety by the terms of the 1996 Plan. A copy of the actual 1996 Plan document has been previously filed with the Securities and Exchange Commission.

Our board of directors adopted the 1996 Plan in October 1996. A total of 15,000,000 shares were reserved for issuance under the 1996 Plan. Options granted under the 1996 Plan may be either incentive stock options, as defined in Section 422 of the Internal Revenue Code of 1986, or nonstatutory stock options. In 1999, our board of directors and shareholders approved an amendment to the 1996 Plan to increase the number of shares of common stock reserved for issuance thereunder by 30,000,000 shares, bringing the total number of shares issuable under the 1996 Plan to 45,000,000. The share increase to the 1996 Plan assured that a sufficient reserve of common stock are available to provide us with the continuing opportunity to utilize equity incentives to attract and retain the services of employees essential to our long-term growth and financial success.

With respect to the grant of options to directors or employees who are also

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

officers or directors, the 1996 Plan is administered by (i) our board of directors, or (ii) a committee designated by the board and constituted in such a manner as to comply with applicable laws to permit such grants and related transactions to be exempt from Section 16(b) of the Exchange Act in accordance with Rule 16b-3. With respect to grants to employees or consultants who are neither officers nor directors of Enova, the 1996 Plan is administered by the board or by a committee of the board.

The administrators of the 1996 Plan have full power to select, from among our employees, directors and consultants eligible for grants, the individuals to whom options will be granted, to determine the specific terms and conditions of each grant, including the number of shares subject to each option, to amend the terms of outstanding options granted under the 1996 Plan (except that any amendments that would adversely affect an optionee's rights under an outstanding option may not be made without the optionee's written consent), and to interpret and construe the terms of the 1996 Plan and options granted thereunder, all subject to the provisions of the 1996 Plan. The interpretation and construction of any provision of the 1996 Plan by the administrators shall be final and conclusive. Members of the board receive no additional compensation for their services in connection with the administration of the 1996 Plan.

The 1996 Plan provides that options may be granted to employees (including officers and directors who are also employees), directors and consultants. Incentive stock options may only be granted to employees.

Each option granted under the 1996 Plan is to be evidenced by a written stock option agreement between Enova and the optionee and is subject to the following additional terms and conditions:

The board or its committee determines on the date of grant when options will become exercisable. An option is exercised by giving written notice of exercise, specifying the number of full shares of common stock to be purchased and tendering payment of the purchase price.

The exercise price of options granted under the 1996 Plan is determined on the date of grant. The exercise price of incentive stock options must be at least 100% of the fair market value

-54-

per share of the common stock at the time of grant. In the case of incentive stock options granted to an employee who at the time of grant owns more than 10% of the voting power of all classes of stock or any parent or subsidiary, the exercise price must be at least 110% of the fair market value per share of the common stock at the time of grant. The exercise price of nonstatutory stock options must be at least 85% of the fair market value per share of the common stock at the time of grant. The exercise price of nonstatutory stock options granted to an employee who at the time of grant owns more than 10% of the voting power of all classes of our stock including stock of any parent or subsidiary, the exercise price must be at least 110% of the fair market value per share of the common stock at the time of grant. In the event of the grant of a nonstatutory option with an exercise price below the then fair market value of the common stock, the difference between fair market value on the date of grant and the exercise price would be treated as a compensation expense for accounting purposes and would therefore affect the our earnings. For purposes of the 1996 Plan, fair market value is defined as the closing sale price of the common stock as reported on the OTC Bulletin Board on last market trading day prior to the time of grant.

If the optionee's employment, directorship or consulting relationship with us is

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

terminated for any reason (other than death or disability), options may be exercised within such period as is determined by the board or its committee (up to three months in the case of incentive stock options) after such termination as to all or part of the shares as to which the optionee was entitled to exercise at the date of such termination, provided that the option is exercised no later than its expiration date.

At the time an option is granted, the board or its committee determines the period within which the option may be exercised. In no event may the term of an incentive stock option be longer than ten (10) years. No option may be exercised by any person after the expiration of its term. An incentive stock option granted to an optionee who, at the time such option is granted, owns stock possessing more than 10% of the voting power of all classes of our stock, may not have a term of more than five (5) years.

An incentive stock option is not transferable by the optionee, other than by will or the laws of descent and distribution, and is exercisable during the optionee's lifetime only by the optionee. A nonstatutory option shall be transferable to the extent determined by the administrator and as provided in an optionee's option agreement.

The option agreement may contain such other terms, provisions and conditions not inconsistent with the 1996 Plan as may be determined by the board or its committee.

In the event any change, such as a stock split, reverse stock split, stock dividend, or combination or reclassification of the common stock, is made in the our capitalization without receipt of consideration, which results in an increase or decrease in the number of outstanding shares of common stock, an appropriate adjustment shall be made in the number of shares under the 1996 Plan and the price per share covered by each outstanding option.

In the event we merge or consolidate with another entity and we are not the surviving corporation, or a proposed sale, transfer or other disposition of all or substantially all of our assets in connection with complete liquidation or dissolution, or a reverse merger in which we are the surviving entity but in which securities possessing more than 50% of the total combined voting power of our outstanding securities are transferred to a person or persons

-55-

different from those who held such securities immediately prior to such merger, each outstanding option shall automatically become fully vested and exercisable and released from any restrictions on transfer and repurchase or forfeiture rights, unless the option is assumed or substituted by the successor corporation or replaced with a comparable option with respect to shares in the surviving corporation, or the option is replaced with a comparable cash incentive program of the successor corporation, or unless the vesting, exercisability and release of the option is subject to other limitations imposed by the 1996 Plan administrators at the time of granting the options.

The board may amend the 1996 Plan at any time or from time to time or may suspend or terminate the 1996 Plan without approval of the shareholders; provided, however, that shareholder approval is required for any amendment to the 1996 Plan for which shareholder approval would be required under applicable law, as in effect at the time. Any amendment, suspension or termination of the 1996 Plan shall not affect options already granted, and such options shall remain in full force and effect, unless mutually agreed otherwise in writing between the optionee and the Plan administrators. The board may accelerate any option or waive any condition or restriction pertaining to such option at any

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

time. The board may also substitute new stock options for previously granted stock options, including previously granted stock options having higher option prices, and may reduce the exercise price of any option to the then current fair market value, if the fair market value of the common stock covered by such option shall have declined since the date the option was granted. In any event, the 1996 Plan shall terminate in October 2006. Any options outstanding under the 1996 Plan at the time of its termination shall remain outstanding until they expire by their terms.

We cannot now determine the number of options to be granted in the future under the 1996 Plan, as proposed to be amended, to executive officers, directors or employees. During 2001, 7,080,000 stock options were granted to employees under the 1996 Plan.

Compensation Committee Interlocks and Insider Participation

Our Compensation Committee currently consists of Mr. Edwin Riddell, as Chairman, and Dr. Malcolm Currie. Mr. Riddell was elected Chairman in August 1998. Dr. Currie was elected to the Compensation Committee in July 1999 and also served on the Compensation Committee during his prior term as a director until his resignation in 1998.

Limitation on Liabilities and Indemnification Matters

Our articles of incorporation limit the personal liability of our directors to our shareholders to the maximum extent permitted by California law. California law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except with respect to liability for:

- o acts or omissions that involve intentional misconduct or a knowing and culpable violation of law;
- o acts or omissions that a director believes to be contrary to the best interests of the corporation or our shareholders or that involve the absence of good faith on the part of the director;
- o any transaction from which the director derived an improper personal benefit.

-56-

- o acts or omissions that show a reckless disregard for the director's duty to the corporation or our shareholders in circumstances in which the director was aware, or should have been aware, in the ordinary course of performing a director's duties, of a risk of serious injury to the corporation or our shareholders;
- o acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to the corporation or our shareholders;
- o contracts or other transactions in which the director has a material financial interest that are not approved in the manner set forth under Section 310 of the California General Corporation Law; or
- o certain distributions or the making of certain loans or guarantees approved by (or deemed to have been approved by) directors as provided under Section 316 of the California General Corporations Law.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

This provision will have no effect on any non-monetary remedies that may be available to us or to our shareholders, nor will it relieve us or other officers or directors from compliance with federal or state securities laws.

Our articles of incorporation and bylaws also generally provide that we will indemnify, to the fullest extent permitted under the California General Corporation Law, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit, investigation, administrative hearing or any other proceeding by reason of the fact that he or she is or was a director or officer of ours, or is or was serving at our request as a director, officer, employee or agent of another entity, against expenses incurred by him or her in connection that proceeding. An officer or director will not be entitled to indemnification by us if:

- o the officer or director did not act in good faith and in a manner reasonably believed to be in our best interests; and
- o with respect to any criminal action or proceeding, the officer or director had no reasonable cause to believe his or her conduct was unlawful.

At the present time there is no pending litigation or proceeding involving any of our directors, officers, employees or agents for which indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding which may result in a claim for indemnification.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

During 2001, there were no transactions or series of similar transactions to which we were or are to be a party in which the amount involved exceeds \$60,000 and in which any of our directors, executive officers or holders of more than 5% of our common stock, or an immediate family member of any of the foregoing, had or will have a direct or indirect interest other than:

-57-

- o compensation arrangements, which are described where required under "Management"; and
- o the transactions described below.

In May 2001, Jagen Pty, Ltd. exercised warrants to purchase 41,666,666 shares of common stock at \$0.06 per share for a total of \$2,500,000. Jagen represented that it was an accredited investor under the definition set forth by the Securities and Exchange Commission. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, for the exemption from registration of the sale of such shares.

In July 2001, Anthony Rawlinson exercised warrants to purchase 8,333,334 shares of common stock at \$0.06 per share for a total of \$500,000. Mr. Rawlinson represented that he was an accredited investor under the definition set forth by the Securities and Exchange Commission. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, for the exemption from registration of the sale of such shares.

PRINCIPAL SHAREHOLDERS

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

The following table sets forth certain information regarding beneficial ownership of our stock as of May 17, 2002, (i) by each person (or group of affiliated persons) who we know to own beneficially more than 5% of any class of our voting securities, (ii) by each of our Directors, (iii) by each of our Named Executive Officers listed in the Summary Compensation Table above, and (v) by our directors and executive officers as a group. Except as indicated in the footnotes to this table and subject to applicable community property laws, the persons named in the table, based on information provided by such persons, have sole voting and investment power with respect to all shares of stock beneficially owned by them.

Name	Shares Beneficially Owned (1)	Percentage of Sh Beneficially Own
Jagen, Pty., Ltd. 9 Oxford Street, South Yorra 3141 Melbourne, Victoria Australia	125,000,000	35.31%
Carl D. Perry c/o Enova Systems, Inc. 19850 South Magellan Drive Torrance, CA 90502	11,200,500 (4)	3.16%
Citibank N.A. 111 Wall Street, 8th Floor New York, NY 10043	31,655,754	8.94%
Anthony N. Rawlinson c/o Enova Systems, Inc. 19850 South Magellan Drive Torrance, CA 90502	25,208,873	7.12%
John J. Micek, III	817,383 (5)	*
Edwin O. Riddell	447,445	*

-58-

Name	Shares Beneficially Owned (1)	Percentage of Sh Beneficially Own
Dr. Malcolm Currie	325,878	*
Donald H. Dreyer	212,646	*
James M. Strock	67,056	*
Delphi Delco Electronics (6)	1,278,720	*

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Jean Schulz (7)	1,329,111	*
<hr style="border-top: 1px dashed black;"/>		
All directors and executive officers as a group (7 persons)	38,279,781(8)	10.81%
<hr style="border-top: 1px dashed black;"/>		

* Indicates less than 1%

- (1) Number of Common Stock shares includes Series A Preferred Stock, Series B Preferred Stock and Common Stock shares issuable pursuant to stock options, warrants and other securities convertible into Common Stock beneficially held by the person or class in question which may be exercised or converted within 60 days after May 17, 2002.
- (2) The percentages are based on the number of shares of Common Stock, Series A Preferred Stock and Series B Preferred Stock owned by the shareholder divided by the sum of: (i) the total Common Stock outstanding, (ii) the Series A Preferred Stock owned by such shareholder; (iii) the Series B Preferred Stock owned by such shareholder; and (iv) Common Stock issuable pursuant to warrants, options and other convertible securities exercisable or convertible by such shareholder within sixty (60) days after May 17, 2002.
- (3) The percentages are based on the number of shares of Common Stock, Series A Preferred Stock and/or Series B Preferred Stock owned by the shareholder divided by the sum of: (i) the total Common Stock outstanding, (ii) the total Series A Preferred Stock outstanding and (iii) the total Series B Preferred Stock outstanding. This percentage calculation has been included to show more accurately the actual voting power of each of the shareholders, since the calculation takes into account the fact that the outstanding Series A Preferred Stock and Series B Preferred Stock are entitled to vote together with the Common Stock as a single class on certain matters to be voted upon by the shareholders.
- (4) Includes 1,200,000 shares of Common Stock issuable pursuant to stock options issued under an employee stock option plan exercisable at a price of \$0.10 per share. The option exercise price, for Mr. Perry's and other employees under the 1996 Stock Option Plan, was reset to \$0.10 per share from \$0.30 per share on August 19, 1998 at the direction of the Board of Directors.
- (5) Includes 565,000 shares of Common Stock issuable pursuant to stock options exercisable at a price of \$0.10 per share. The option exercise price was reset to \$0.10 per share from \$0.30 per share on June 10, 1999 at the direction of the Board of Directors.
- (6) Series B Preferred Stock shareholder. Series B shares represent the equivalent of two shares of Common Stock for every one share of Series B Preferred stock.
- (7) Series A Preferred Stock shareholder. Series A shares represent the equivalent of one share of Common Stock for every one share of Series A Preferred stock.
- (8) Includes 1,765,000 shares of Common Stock issuable pursuant to stock options exercisable at price of \$.10 per share

SELLING SHAREHOLDER

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

The following table sets forth information, as of May 17, 2002, with respect to Fontal International, Ltd., the selling shareholder. We issued the shares of our common stock being

-59-

offered by Fontal in private placement in December 2001 and March 2002. We initially issued 6,000,000 shares of our common stock at a price equivalent to \$0.15 per share. The shares were issued as consideration for the out-of-court settlement of a lawsuit brought against us by Fontal. We issued an additional 200,000 shares in further negotiations with Fontal, again at a price equivalent to \$0.15 per share. This prospectus covers the resale of these shares by Fontal, plus, in accordance with Rule 416 under the Securities Act of 1933, such additional number of shares of our common stock as may be issued due to stock splits, stock dividends or other similar transactions. The number of shares shown in the following table as being offered by Fontal does not include such presently indeterminate number of additional shares of our common stock.

Any and all of the shares of common stock may be offered for sale by Fontal pursuant to this prospectus from time to time. Accordingly, we can give no estimate as to the amounts of shares of our common stock that Fontal will hold upon consummation of any such sales. In addition, Fontal may have sold, transferred or otherwise disposed of all or a portion of our shares since the date on which the information regarding the common stock was provided in transactions exempt from the registration requirements of the Securities Act of 1933.

Fontal was a holder of Enova debt prior to December 31, 1999. In 1999, Fontal converted long-term debt of approximately \$1,247,000 including accrued interest into approximately 4,246,000 shares of our common stock.

-60-

Name ----	Shares of Common Stock owned prior to the Offering -----	Shares of Common Stock Offered (1) -----	Shares of Common Stock to be owned after the Offering (1) -----
Fontal International, Ltd.	0	6,200,000	6,200,000

(1) The number of shares listed in these columns include all shares beneficially owned and all options and warrants to purchase shares held, whether or not deemed to be beneficially owned, by Fontal. The ownership percentage listed in these columns includes only shares beneficially owned by Fontal. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In computing the percentage of shares beneficially owned by Fontal, shares of common stock subject to options or warrants held by the shareholder that are exercisable now or within 60 days hereafter are deemed outstanding, although those shares are not deemed

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

outstanding for the purpose of computing the percentage ownership of any other person. The ownership percentage is calculated assuming that 296,227,095 shares of common stock, 2,844,336 shares of Series A Stock and 1,217,196 shares of Series B Stock were outstanding immediately prior to this offering.

PLAN OF DISTRIBUTION

We are registering all 6,200,000 of the shares of our common stock offered by this prospectus on behalf of Fontal, and will receive no proceeds from this offering.

Fontal, or its pledgees, donees, transferees or other successors-in-interest selling shares received from Fontal as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus are free to sell the shares from time to time. Fontal will act independently of us in making decisions with respect to the timing, manner and size of each sale. The sales may be made in the national over-the-counter market or otherwise, at prices and at terms then prevailing or at prices related to the then current market price, or in negotiated transactions. Fontal may effect such transactions by selling the shares to or through broker-dealers. The shares may be sold in one or more transactions and by one or more of, or a combination of, the following:

- o block trade in which the broker-dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- o purchases by a broker-dealer as principal and resale by such broker-dealer for its account pursuant to this prospectus;
- o an exchange distribution in accordance with the rules of such exchange;
- o a distribution or other transfer to one or more of the equity holders of Fontal;

-61-

- o ordinary brokerage transactions and transactions in which the broker solicits purchasers; and
- o in privately negotiated transactions.

In effecting sales, broker-dealers engaged by Fontal may arrange for other broker-dealers to participate in the resales.

Fontal may enter into hedging transactions with broker-dealers in connection with distributions of the shares or otherwise. In such transactions, broker-dealers may engage in short sales of the shares in the course of hedging the positions they assume with Fontal. Fontal also may sell shares short and redeliver the shares to close out such short positions. Fontal may enter into option or other transactions with broker-dealers that require the delivery to the broker-dealer of the shares. The broker-dealer may then resell or otherwise transfer such shares pursuant to this prospectus. Fontal also may loan or pledge the shares to a broker-dealer. The broker-dealer may sell the shares so loaned, or upon a default the broker-dealer may effect sales of the pledged shares pursuant to this prospectus.

Broker-dealers or agents may receive compensation in the form of commissions,

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

discounts or concessions from Fontal. Broker-dealers or agents may also receive compensation from the purchasers of the shares for whom they act as agents or to whom they sell as principals, or both. Compensation as to a particular broker-dealer might be in excess of customary commissions and will be in amounts to be negotiated in connection with the sale. Brokers-dealers or agents and any other participating broker-dealers or Fontal may be deemed to be underwriters within the meaning of Section 2(11) of the Securities Act of 1933, in connection with sales of the shares. Accordingly, any such commission, discount or concession received by them and any profit on the resale of the shares purchased by them may be deemed to be underwriting discounts or commissions under the Securities Act. Because Fontal may be deemed to be an underwriter within the meaning of Section 2(11) of the Securities Act, Fontal will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus that qualify for sale pursuant to Rule 144 promulgated under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus. Fontal has advised us that it has not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of the shares; nor is any underwriter or coordinating broker acting in connection with the proposed sale of the shares.

The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirements is available and is complied with.

Under applicable rules and regulations under the Securities Exchange Act of 1934, any person engaged in the distribution of the shares may not simultaneously engage in market-making activities with respect to our common stock for a period of two business days prior to the commencement of such distribution. In addition, we have Fontal that it will be subject to applicable provisions of the Exchange Act and the associated rules and regulations under the Exchange Act, including the anti-manipulation rules under Regulation M promulgated under the Exchange Act, which provisions may limit the timing of purchases and sales of shares of our common stock by the selling shareholder. We will make copies of this prospectus

-62-

available to Fontal and we have informed its management of the need for delivery of copies of this prospectus to purchasers at or prior to the time of any sale of the shares.

We will bear all costs, expenses and fees in connection with the registration of the shares and will supplement and amend this prospectus from time to time as may be required under the Securities Act. During any time when a supplement or amendment is required, the selling shareholder will be required to cease sales of the shares covered by this prospectus until it has been supplemented or amended.

Fontal will bear all commissions and discounts, if any, attributable to the sales of the shares. The selling shareholder may agree to indemnify any broker-dealer or agent that participates in transactions involving sales of the shares against certain liabilities, including liabilities arising under the Securities Act.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 500,000,000 shares of common stock, no

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

par value, and 35,000,000 shares of preferred stock. We currently have 302,732,000 shares of common stock outstanding, 2,844,336 shares of Series A Stock and 1,217,196 shares of Series B Stock.

Common Stock

Voting Rights. Each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of our shareholders, including the election of directors.

Dividends. Subject to the preferential dividend rights of the Series A Stock and Series B Stock, holders of common stock are entitled to receive dividends at the same rate if and when dividends are declared by our board of directors out of assets legally available for the payment of dividends.

Liquidation. In the event of a liquidation, dissolution or winding up our affairs, whether voluntary or involuntary, after payment of our debts or other liabilities and making provisions for the holders of the outstanding shares of preferred stock as described below, our remaining assets will be distributed ratably among the holders of shares of common stock.

Rights and Preferences. Our common stock has no preemptive, redemption, conversion or subscription rights. The rights, powers, references and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable. All of our outstanding shares of common stock, including the shares offered by this prospectus, are fully paid and nonassessable.

Preferred Stock

Voting Rights. Each outstanding share of Series A Stock is entitled to one vote on all matters submitted to a vote of our shareholders, including the election of the common/Series A directors. Each outstanding share of Series B Stock is entitled to two votes on all matters submitted to a vote of our shareholders, including the election of directors.

-63-

Dividends. Holders of preferred stock are entitled to receive dividends in an amount equal to 6% of \$0.60 per share of preferred stock per annum if and when dividends are declared by our board of directors out of assets legally available for the payment of dividends.

Liquidation. In the event of any liquidation, dissolution or winding up of the affairs of the corporation, voluntarily or involuntarily, after payment or provision for payment of all debts, liabilities and obligations of Enova, but before any distribution to the holders of common stock, the holders of Series A Stock shall be paid the amount of \$0.60 per share for each share of Series A Stock held by them, plus all dividends declared but unpaid on such shares of Series A Stock. After payment to the holders of Series A Stock, the holders of common stock shall be paid an amount per share equal to the per share Series A Stock liquidation price paid to the holders of Series A Stock. Any remaining assets shall be distributed to the holder of shares of stock of all classes and series which have been converted into common stock as of the date of filing of the Certificate of Dissolution Enova with the California Secretary of State.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Rights and Preferences.

Conversion Rights. While any Series A Stock remains outstanding:

- a. Option to Convert. At the option of the holder, each share of Series A Stock shall be convertible at any time into fully paid and non-assessable shares of common stock at the conversion price then in effect.
- b. Automatic Conversion. Each share of Series A Stock will be converted common stock at the then effective conversion price upon (a) the consummation of the sale of the common stock in an underwritten public offering registered under the Securities Act of 1933, as amended (the "Securities Act"); or (b) the registration of the underlying common stock of the holders' Series A Stock under the Securities Act; or (c) a merger or consolidation with or into another corporation or a sale of more than fifty percent (50%) of our outstanding voting securities or a sale of all or substantially all of our properties and assets.
- c. Adjustment to Conversion Price for Diluting Issues. If we declare or pay any dividend on common stock payable in common stock or in any right to acquire common stock, or effect a subdivision of the outstanding shares of common stock into a greater number of shares of common stock (by stock split, reclassification or otherwise than by payment of a dividend in common stock or in any right to acquire common stock), then and in any such event, appropriate adjustments in the conversion price will be made.

Except upon the automatic conversion of the Series A Stock if, at any time, there occurs any capital reorganization, or any reclassification of our stock (other than a change in par value or as a result of a stock dividend or subdivision, split-up or combination of shares), or our consolidation or merger with or into another entity (other than a consolidation or merger in which we are the surviving entity and which does not result in any change in the rights of the common stock), or the sale or other disposition of all or substantially all our properties and assets in entirety to any other person, then each share of Series A Stock will, after such capital reorganization, reclassification, consolidation, merger, sale or other disposition, be converted into the kind and number

-64-

of shares of stock or other securities or property of the corporation or of the entity resulting in the consolidation or surviving the merger or to which the properties and assets shall have been sold or otherwise disposed to which the holder would have been entitled if immediately prior to the capital reorganization, reclassification, consolidation, merger, sale or other disposition the holder had converted his or its shares of Series A Stock into common stock. These provisions similarly apply to successive capital reorganizations, reclassifications, consolidations, mergers, sales, or other similar dispositions.

Fully Paid and Nonassessable. All of our outstanding shares of preferred stock fully paid and nonassessable.

Our board of directors has the authority, without action by our shareholders, to provide for the issuance of preferred stock in one or more classes or series and to designate the rights, preferences and privileges of each class or series, which may be greater than the rights of the common stock. We cannot predict the effect of the issuance of any shares of preferred stock upon the rights of

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

holders of the common stock until the board of directors determines the specific rights of the holders of the preferred stock. However, the effects could include one or more of the following:

- o restricting dividends on the common stock;
- o diluting the voting power of the common stock;
- o impairing the liquidation rights of the common stock; or
- o delaying or preventing a change in control of us without further action by the shareholders.

We have no present plans to issue any additional shares of preferred stock.

Warrants

As of May 17, 2002, there were outstanding warrants to purchase 15,000,000 shares of common stock at an average exercise price of \$0.29 per share (subject to adjustment for certain anti-dilutive issuances).

Registration Rights

The warrants described above have so called "Piggyback" registration rights. If we at any time propose to file on our behalf or on behalf of any of our security holders a registration statement under the Securities Act on any form and other than a registration statement on Form S-4 or S-8 for any class that is the same or similar to the warrants, we must give written notice of the proposed offering to the warrant holders at least thirty (30) days before the initial filing of such registration statement, and offer to include the warrant holders in the proposed offering.

-65-

Transfer Agent and Registrar

Computershare Investor Services, Inc. serves as our transfer agent and registrar for our common stock.

SHARES ELIGIBLE FOR FUTURE SALE

Future sales of our common stock, and the availability of our common stock for sale, may depress the market price for our common stock. Approximately 247,227,000 shares of our common stock currently are freely tradable, of which 131,000,000 shares are currently subject to the volume limitations of Rule 144 discussed below. All of the shares sold in this offering will be freely tradable except for any shares purchased by our affiliates. In addition, 30,544,000 shares of our common stock previously issued or upon issuance pursuant to the exercise of options granted under our stock option plans may be resold in reliance on Rule 144 and Rule 701, as discussed below. All other shares of common stock outstanding as of the date hereof are restricted or subject to lock-up agreements. These other shares will be available for sale in the public market as follows:

In general, under Rule 144, as currently in effect, a person who has beneficially owned shares of our common stock for at least one year would be entitled to sell within any three-month period a number of shares that does not

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

exceed the greater of:

- o 1% of the number of shares of common stock then outstanding, which will equal approximately shares immediately after this offering; or
- o the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Under Rule 144(k), a person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, including the holding period of any prior owner other than an affiliate, is entitled to sell the shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

Rule 701, as currently in effect, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions, including the holding period requirement, of Rule 144. No shares of our common stock previously issued, or when issued, pursuant to our stock option plans may be resold under the provisions of Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell their shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitations or notice provisions of Rule 144.

We filed a Registration Statement on Form S-8 registering shares of common stock subject to the 1996 Plan (including shares that may be resold under Rule 701, discussed above). As of February 1, 2002, options to purchase a total of 30,544,000 shares were outstanding and 14,456,000 shares were reserved for future issuance under our stock option plans.

-66-

24,762,898 of these options are vested and available for immediate resale in the open market.

LEGAL MATTERS

The validity of the shares of common stock being offered will be passed for the selling shareholder by Crosby, Heafey, Roach & May Professional Corporation, Oakland, California.

EXPERTS

The financial statements as of and for the years ended December 31, 2001 and 2000, the five months ended December 31, 1999 and for the years ended July 31, 1999 and 1998 included in this prospectus and in the registration statement have been audited by Moss Adams LLP, independent certified public accountants, to the extent and for the periods set forth in their reports appearing elsewhere herein and in the registration statement.

WHERE YOU CAN GET MORE INFORMATION

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered. This prospectus does not contain all of the information described in the registration statement and the related exhibits and schedules. For further information with respect to us and the common stock being offered, reference is made to the registration statement and the related exhibits and schedule. A copy of the registration statement and the related exhibits and schedule may be inspected without charge at the public reference facilities maintained by the Commission in Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Commission's regional offices located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 233 Broadway, New York, New York 10279, and copies of all or any part of the registration statement may be obtained from these offices upon the payment of the fees prescribed by the Commission. Information on the operation of the Public Reference Room may be obtained by calling the Commission at 1-800-SEC-0330. The Commission maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Commission. The address of the site is <http://www.sec.gov>.

We intend to provide our shareholders with annual reports containing financial statements audited by an independent accounting firm and to file with the Commission quarterly reports containing unaudited financial data for the first three quarters of each year.

-67-

INDEX TO FINANCIAL STATEMENTS

	Page

INDEPENDENT AUDITOR'S REPORT.....	F-1
BALANCE SHEETS AT DECEMBER 31, 2001 AND 2000.....	F-2
STATEMENTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2001 AND 2000 AND THE FIVE MONTHS ENDED DECEMBER 31, 1999 AND YEAR ENDED JULY 31, 1999.....	F-3
STATEMENTS OF STOCKHOLDERS' DEFICIT FOR THE YEARS ENDED DECEMBER 31, 2001 AND 2000 AND THE FIVE MONTHS ENDED DECEMBER 31, 1999 AND YEAR ENDED JULY 31, 1999.....	F-4
STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2001 AND 2000, AND THE FIVE MONTHS ENDED DECEMBER 31, 1999 AND YEAR ENDED JULY 31, 1999.....	F-5
NOTES TO FINANCIAL STATEMENTS	F-6
BALANCE SHEET AT MARCH 31, 2002.....	Q-1
STATEMENTS OF OPERATIONS FOR THE THREE MONTHS ENDED MARCH 31, 2002 AND 2001.....	Q-2
STATEMENTS OF CASH FLOWS FOR THE THREE MONTHS	

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

ENDED MARCH 31, 2002 AND 2001.....Q-3

INDEPENDENT AUDITOR'S REPORT

To the Stockholders and Board of Directors Enova Systems, Inc.

We have audited the accompanying balance sheets of Enova Systems, Inc., formerly U.S. Electricar, Inc., as of December 31, 2001 and 2000, and the statements of operations, stockholders' deficit, and cash flows for the two years ended December 31, 2001, the five months ended December 31, 1999, and the year ended July 31, 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Enova Systems, Inc., as of December 31, 2001 and 2000, and the results of its operations and cash flows for the two years ended December 31, 2001, the five months ended December 31, 1999, and the year ended July 31, 1999, in conformity with accounting principles generally accepted in the United States.

/s/ MOSS ADAMS LLP

Santa Rosa, California
February 22, 2002

Page F-1

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
BALANCE SHEETS
December 31, 2001 and 2000

ASSETS

CURRENT ASSETS

- Cash
- Accounts receivable
- Inventories and supplies
- Related party receivable, current maturities
- Prepays and other current assets

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Total current assets

PROPERTY AND EQUIPMENT

RELATED PARTY RECEIVABLE, less current maturities

OTHER ASSETS

Total assets

LIABILITIES AND STOCKHOLDERS' DEFICIT

CURRENT LIABILITIES

Accounts payable

Accrued payroll and related expenses

Other accrued expenses

Current maturities of long-term debt

Current maturities of capital lease obligations

Total current liabilities

ACCRUED INTEREST PAYABLE

LONG-TERM PAYABLES

CAPITAL LEASE OBLIGATIONS, less current maturities

LONG-TERM DEBT, less current maturities

Total liabilities

STOCKHOLDERS' DEFICIT

Series A convertible preferred stock - no par value; 30,000,000 shares authorized; 2,844,000 shares issued and outstanding; liquidating preference at \$0.60 per share aggregating \$1,706,000

Series B convertible preferred stock - no par value; 5,000,000 shares authorized; 1,217,000 shares issued and outstanding; liquidating preference at \$2.00 per share aggregating \$2,434,000

Common stock - no par value; 500,000,000 shares authorized; 302,502,000 and 244,249,000 shares issued and outstanding

Common stock subscribed

Stock notes receivable

Additional paid-in capital

Accumulated deficit

Total stockholders' deficit

Total liabilities and stockholders' deficit

See accompanying notes.

Page F-2

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
STATEMENTS OF OPERATIONS
Years Ended December 31, 2001 and 2000, the Five Months
Ended December 31, 1999, and the Year Ended July 31, 1999

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

	2001	2000
	-----	-----
NET REVENUES	\$ 3,780,000	\$ 2,883,000
COST OF REVENUES	2,783,000	2,013,000
	-----	-----
GROSS PROFIT	997,000	870,000
	-----	-----
OTHER COSTS AND EXPENSES		
Research and development	879,000	626,000
Selling, general, and administrative	2,894,000	1,999,000
Interest and financing fees	113,000	174,000
(Gain) loss on disposition of fixed assets	(7,000)	6,000
Legal settlements	900,000	75,000
Gain on warranty accrual reevaluation	--	--
Other (income)/expense	--	--
	-----	-----
Total other costs and expenses	4,779,000	2,880,000
	-----	-----
LOSS FROM CONTINUING OPERATIONS	(3,782,000)	(2,010,000)
EXTRAORDINARY ITEM - GAIN ON DEBT RESTRUCTURING	354,000	1,551,000
	-----	-----
NET LOSS	\$ (3,428,000)	\$ (459,000)
	=====	=====
LOSS PER COMMON SHARE		
Loss from continuing operations	\$ (0.01)	\$ (0.01)
Gain on debt restructuring	--	0.01
	-----	-----
	\$ (0.01)	\$ --
	=====	=====
WEIGHTED AVERAGE OF COMMON SHARES OUTSTANDING	\$ 275,188,979	\$ 235,199,406
	=====	=====

See accompanying notes.

Page F-3

 ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
 STATEMENTS OF STOCKHOLDERS' DEFICIT
 Years Ended December 31, 2001 and 2000, the Five Months
 Ended December 31, 1999, and the Year Ended July 31, 1999

Preferred Stock

Series A

Series B

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

	Shares	Amount	Shares	Amount
Balance, July 31, 1998	3,321,000	\$ 2,258,000	1,291,000	\$ 2,584,000
Common Stock Transactions				
Conversion of Series A preferred stock	(62,000)	(67,000)	--	--
Conversion of Series B preferred stock	--	--	(49,000)	(98,000)
Sale of stock	--	--	--	--
Conversion of debt	--	--	--	--
Issuance of common stock warrants	--	--	--	--
Debt forgiveness by stockholder	--	--	--	--
Net loss	--	--	--	--
Balance, July 31, 1999	3,259,000	2,191,000	1,242,000	2,486,000
Common Stock Transactions				
Conversion of Series A preferred stock	(20,000)	(25,000)	--	--
Stock issued for services	--	--	--	--
Conversion of debt	--	--	--	--
Debt forgiveness by stockholder	--	--	--	--
Net loss	--	--	--	--
Balance, December 31, 1999	3,239,000	2,166,000	1,242,000	2,486,000
Common Stock Transactions				
Conversion of Series A preferred stock	(395,000)	(299,000)	--	--
Conversion of Series B preferred stock	--	--	(25,000)	(52,000)
Stock options exercised	--	--	--	--
Sale of stock	--	--	--	--
Stock issued for services	--	--	--	--
Conversion of debt	--	--	--	--
Repurchase of stock from stockholder	--	--	--	--
Debt forgiveness by stockholder	--	--	--	--
Net loss	--	--	--	--
Balance, December 31, 2000	2,844,000	1,867,000	1,217,000	2,434,000
Common Stock Transactions				
Stock issued on exercise of warrants	--	--	--	--
Stock options exercised	--	--	--	--
Stock issued for services	--	--	--	--
Stock issued in legal settlement	--	--	--	--
Warrants issued for value participation agreement	--	--	--	--
Net loss	--	--	--	--
Balance, December 31, 2001	2,844,000	\$ 1,867,000	1,217,000	\$ 2,434,000

	Common Stock Subscribed		Additional Paid-In Capital	Stock Note Receiv
	Shares	Amount		
Balance, July 31, 1998	--	\$ --	\$ --	\$ (1,149,000)
Common Stock Transactions				
Conversion of Series A preferred stock	--	--	--	--
Conversion of Series B preferred stock	--	--	--	--

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Sale of stock	--	--	--	
Conversion of debt	--	--	--	
Issuance of common stock warrants	--	--	406,000	
Debt forgiveness by stockholder	--	--	2,694,000	
Net loss	--	--	--	
	-----	-----	-----	-----
Balance, July 31, 1999	--	--	3,100,000	(1,149,000)
Common Stock Transactions				
Conversion of Series A preferred stock	--	--	--	
Stock issued for services	1,317,000	148,000	--	
Conversion of debt	4,246,000	1,297,000	--	
Debt forgiveness by stockholder	--	--	1,817,000	
Net loss	--	--	--	
	-----	-----	-----	-----
Balance, December 31, 1999	5,563,000	1,445,000	4,917,000	(1,149,000)
Common Stock Transactions				
Conversion of Series A preferred stock	--	--	--	
Conversion of Series B preferred stock	--	--	--	
Stock options exercised	--	--	--	
Sale of stock	--	--	--	
Stock issued for services	(5,518,000)	(1,432,000)	--	
Conversion of debt	--	--	--	
Repurchase of stock from stockholder	--	--	--	
Debt forgiveness by stockholder	--	--	1,455,000	
Net loss	--	--	--	
	-----	-----	-----	-----
Balance, December 31, 2000	45,000	13,000	6,372,000	(1,149,000)
Common Stock Transactions				
Stock issued on exercise of warrants	--	--	--	
Stock options exercised	--	--	--	(59,000)
Stock issued for services	955,000	147,000	--	
Stock issued in legal settlement	--	--	--	
Warrants issued for value participation agreement	--	--	577,000	
Net loss	--	--	--	
	-----	-----	-----	-----
Balance, December 31, 2001	1,000,000	\$ 160,000	\$6,949,000	\$ (1,208,000)
	=====	=====	=====	=====

See accompanying notes.

Page F-4

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
STATEMENTS OF CASH FLOWS
Years Ended December 31, 2001 and 2000, the Five Months
Ended December 31, 1999, and the Year Ended July 31, 1999

	2001	2000
	-----	-----
CASH FLOWS FROM OPERATING ACTIVITIES		
Net loss	\$ (3,428,000)	\$ (459,000)
Adjustments to reconcile net loss to net cash from operating activities:		

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Depreciation and amortization	205,000	136,000
Loss on disposition of fixed assets	--	6,000
Gain on debt restructuring and extinguishment	(210,000)	(1,551,000)
Stock issued for services	245,000	66,000
Stock issued for legal settlement	900,000	
Accrued interest forgiven	--	156,000
Change in allowance for doubtful accounts	--	
Provision to reduce inventory values	--	
Changes in valuation allowances and reserves	--	
Change in operating assets and liabilities:		
Accounts receivable	(233,000)	(432,000)
Inventories	(520,000)	(151,000)
Related party receivable	25,000	25,000
Note receivable	--	
Prepays and other current assets	(19,000)	(7,000)
Other assets	(39,000)	
Accounts payable and accrued expenses	(112,000)	(120,000)
Accrued interest payable	163,000	75,000
Customer deposits	--	(102,000)
	-----	-----
Net cash from operating activities	(3,023,000)	(2,358,000)
	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES		
Equipment acquisitions	(219,000)	(88,000)
	-----	-----
CASH FLOWS FROM FINANCING ACTIVITIES		
Borrowings on notes payable	--	
Proceeds from exercise of warrants and options	3,122,000	
Proceeds from sale of stock	--	2,392,000
Purchase of common stock	--	(100,000)
Payments on notes payable and capital lease obligations	(11,000)	(1,000)
	-----	-----
Net cash from financing activities	3,111,000	2,291,000
	-----	-----
NET CHANGE IN CASH	(131,000)	(155,000)
CASH, beginning of the period	1,310,000	1,465,000
	-----	-----
CASH, end of the period	\$ 1,179,000	\$ 1,310,000
	=====	=====
SUPPLEMENTAL CASH-FLOW INFORMATION		
Cash paid during the year for interest	\$ 5,000	\$ 40,000
Non-cash investing and financing activities:		
Conversion of preferred stock to common stock	\$ --	\$ 351,000
Conversion of debt and accrued interest to equity	\$ --	\$ 1,470,000
Issuance of warrants	\$ --	\$ --
Equipment acquired under capital lease	\$ --	\$ 41,000

See accompanying notes.

Page F-5

NOTE 1 - DESCRIPTION OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of operations - Enova Systems, Inc., formerly U.S. Electricar, Inc., is a California corporation that develops drive trains and related components for electric, hybrid electric, and fuel cell systems for mobile and stationary applications. The Company retains development and manufacturing rights to many of the technologies created, whether such research and development is internally or externally funded. The change in the Company's name to Enova Systems became effective January 1, 2000. The Company develops and sells components in the United States and Asia and sells components in Europe.

Change in fiscal year - Effective December 31, 1999, the Company changed its fiscal year-end from July 31 to December 31.

Cash equivalents - Highly liquid investments with an original maturity debt of three months or less are considered cash equivalents. There were no cash equivalents at December 31, 2001 or 2000.

Inventory - Inventory is comprised of materials used in the design and development of electric drive systems under ongoing development contracts, and is stated at the lower of cost (first-in, first-out) or market.

Property and equipment - Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the related assets, which range from three to seven years. Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate the sum of expected cash flows from use of the asset is less than its carrying value. Long-lived assets that management has committed to sell or abandon are reported at the lower of carrying amount or fair value less cost to sell.

Income taxes - Deferred income taxes are recognized using enacted tax rates and are composed of taxes on financial accounting income that is adjusted for requirements of current tax law and deferred taxes. Deferred taxes are the expected future tax consequences of temporary differences between the financial statement carrying amounts and tax bases of existing assets and liabilities.

Revenue recognition - The Company is obligated to perform research and development activities under development and licensing agreements. The agreements require the Company to design, develop, and test drive systems and deliver working prototypes. The Company retains all rights to the products developed and will license their use to the counter-party. Revenue on engineering and research and development contracts is recognized at the completion of specified engineering or billing milestones, as set forth in each agreement. Revenues from sales of components are recognized when shipped and title passes to the customer. During 1999, revenue from the sale of electric vehicles was recognized when the vehicle was delivered to the customer.

Loss per common share - Loss per common share is computed using the weighted average number of common shares outstanding. Since a loss from operations exists, a diluted earnings per share number is not presented because the inclusion of common stock equivalents in the computation would be antidilutive. Common stock equivalents associated with Series A and B preferred stock, stock options, and warrants, which are exercisable into 37,230,000 shares of common stock, could potentially dilute earnings per share in future years.

Concentrations of risk - Financial instruments potentially subjecting the Company to concentrations of credit risk consist primarily of bank demand

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

deposits that may, from time to time, be in excess of FDIC insurance thresholds, and trade receivables. Demand deposits are placed with known creditable financial institutions. A customer, Hyundai, is also a stockholder that holds less than 5% of the outstanding common stock. For the years ended December 31, 2001 and 2000, Hyundai accounted for approximately 13% and 58% of total revenues. Revenues associated with Hyundai for the five months ended December 31, 1999, and the twelve months ended July 31, 1999, were 63% and 44%.

Use of estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires the Company make estimates and assumptions affecting the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The amounts estimated could differ from actual results, and the difference could have a significant impact on the financial statements.

Page F-6

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

Shipping costs - Shipping and handling are included in costs of goods sold.

Warranties - In 1999, electric vehicle warranties were provided by the Company on vehicles sold when the Company was U.S. Electricar. The warranties generally extended for one year from the time of sale. Warranties for substantially all vehicles sold by the Company had elapsed, resulting in a \$474,000 gain concurrent with the reevaluation of the warranty accrual.

Fair value of financial instruments - The Company measures its financial assets and liabilities in accordance with accounting principles generally accepted in the United States. The fair value of a financial instrument is the amount at which the instrument could be exchanged in a current transaction between willing parties. For certain of the Company's financial instruments, including cash, accounts receivable and accounts payable, the carrying amount approximates fair value because of the short maturities. The fair value of the Company's short-term and long-term debt may be substantially less than the carrying value since there is no readily ascertainable market for the debt given the financial position of the Company.

Stock-based compensation - The Company accounts for stock-based employee compensation arrangements in accordance with the provisions of Accounting Principles Board Opinion No. 25 (APB No. 25), "Accounting for Stock Issued to Employees," and complies with the disclosure provisions of Statement of Financial Accounting Standards No. 123 (SFAS No. 123), "Accounting for Stock-Based Compensation." Under APB No. 25, compensation expense is the excess, if any, of the fair value of the Company's stock at a measurement date over the amount that must be paid to acquire the stock. SFAS No. 123 requires a fair value method to be used when determining compensation expense for stock options and similar equity instruments. SFAS No. 123 permits a company to continue to use the provisions of APB No. 25 when accounting for stock-based compensation to employees, but proforma disclosures of net income and earnings or loss per share must be made as if SFAS No. 123 had been adopted in its entirety. Stock options issued to non-employees are valued under the provisions of SFAS No. 123.

Recent accounting pronouncements - The Financial Accounting Standards Board (FASB) has issued the following accounting pronouncements:

SFAS No. 141, "Business Combinations." This Statement addresses financial accounting and reporting for business combinations and supersedes Accounting

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Principles Board (APB) Opinion No. 16, "Business Combinations," and SFAS No. 38, "Accounting for Preacquisition Contingencies of Purchased Enterprises." All business combinations in the scope of this Statement are to be accounted for using one method, the purchase method. The provisions of this Statement apply to all business combinations initiated after June 30, 2001. The adoption of SFAS No. 141 is not expected to have a material effect on the Company's financial statements.

SFAS No. 142, "Goodwill and Other Intangible Assets." This Statement addresses financial accounting and reporting for acquired goodwill and other intangible assets and supersedes APB No. 17, "Intangible Assets." It addresses how intangible assets that are acquired individually or with a group of other assets (but not those acquired in a business combination) should be accounted for in financial statements upon their acquisition. This Statement also addresses how goodwill and other intangible assets should be accounted for after they have been initially recognized in the financial statements. The provisions of this Statement are required to be applied starting with fiscal years beginning after December 15, 2001. The adoption of SFAS No. 142 is not expected to have a material effect on the Company's financial statements.

SFAS No. 143, "Accounting for Asset Retirement Obligations." This statement addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This Statement applies to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and (or) the normal operation of a long-lived asset. The provisions of this Statement are required to be applied starting with fiscal years beginning after June 15, 2002. The adoption of SFAS No. 143 is not expected to have a material effect on the Company's financial statements.

SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets. SFAS 144 replaces SFAS 121 and amends certain other accounting pronouncements. The provisions of this Statement are effective for financial statements issued for fiscal years beginning after December 15, 2001. The adoption of SFAS No. 144 is not expected to have a material effect on the Company's financial statements.

Page F-7

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

NOTE 2 - MANAGEMENT'S PLANS

The Company has experienced cash flow shortages due to operating losses primarily attributable to research and development, marketing, and other costs associated with its strategic plan to become an international manufacturer and supplier of electric propulsion and power management systems and components. Additional outside financing is anticipated until the Company reaches a breakeven volume in sales and develops and/or acquires the capability to manufacture and sell products profitably. While the Company continues its efforts to obtain additional equity funding, a major stockholder has committed up to \$2 million to fund operations during 2002.

The future unavailability or inadequacy of financing to meet future needs could force the Company to delay, modify, suspend, or cease some or all aspects of its planned operations.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

NOTE 3 - PROPERTY AND EQUIPMENT

	2001	2000
	-----	-----
Computers	\$ 154,000	\$124,000
Machinery and equipment	407,000	285,000
Furniture and office equipment	186,000	126,000
Demonstration vehicles and buses	147,000	142,000
Leasehold improvements	68,000	66,000
Equipment under capital lease	41,000	41,000
	-----	-----
	1,003,000	784,000
Less accumulated depreciation and amortization	723,000	570,000
	-----	-----
	\$ 280,000	\$214,000
	=====	=====

NOTE 4 - RELATED PARTY RECEIVABLE

Hyundai, a stockholder, acquired certain technology licensing rights from the Company in 1997. Part of the consideration for these rights included periodic installment payments of \$25,000 per year for six years, with the final payment expected in February 2003.

NOTE 5 - OTHER ASSETS

The Company is in the process of obtaining patents for several products. The legal costs associated with the patents, \$49,000 to date, have been capitalized and will be amortized over the life of the patents upon receiving the patent.

In June 2001, the Company entered into a strategic relationship with Ford Motor Company to develop and manufacture a high power, high voltage conversion module for Ford's fuel cell vehicle. Warrants were issued to Ford Motor Company in exchange for Ford's commitment to enter into this five-year agreement. The issuance of the warrants was recorded as a noncurrent asset (Value Participation Agreement) at its fair market value of \$ 577,000, and is being amortized on a straight-line basis over the life of the contract. Fair market value was determined using the Black-Scholes option pricing model.

	2001	2000
	-----	-----
Patents	\$ 49,000	\$10,000
Valuation Participation Agreement	577,000	--
	-----	-----
	626,000	10,000
Less accumulated amortization	52,000	--
	-----	-----
	\$574,000	\$10,000
	=====	=====

Page F-8

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

NOTE 6 - LONG-TERM DEBT

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

	2001 -----	2000 -----
Secured promissory note to Credit Managers Association of California, with interest at 3% for the first five years beginning June 1996, 6% for years six and seven, and then at prime plus 3% through maturity; interest payments are made upon payment of principal, which is due no later than April 2016; a sinking fund escrow is required to be funded with 10% of future equity financing, as defined in the agreement	\$3,332,000	\$3,332,000
Unsecured promissory note with interest at 10%, note is past due	120,000 -----	120,000 -----
	3,452,000	3,452,000
Less current maturities	120,000 -----	120,000 -----
	\$3,332,000 =====	\$3,332,000 =====

NOTE 7 - CAPITAL LEASE OBLIGATIONS

The Company rents manufacturing and office equipment under various capital lease agreements that expire beginning in 2003. Future minimum lease payments under these capital lease agreements are as follows:

Year Ending December 31, -----	
2002	\$ 14,000
2003	16,000
2004	6,000
2005	7,000 -----
	43,000
Less amounts representing interest	14,000 -----
	29,000
Present value of minimum lease payments	9,000 -----
Less current maturities	9,000 -----
	\$ 20,000 =====

NOTE 8 - OPERATING LEASES

The Company's lease on its Torrance, California, facility expires in February 2003. Rent expense was \$210,000 and \$177,000 for the years ended December 31, 2001 and 2000. Rent for the five months ended December 31, 1999, and the twelve months ended July 31, 1999, was \$40,000 and \$144,000. Future minimum lease payments are as follows:

Year Ending December 31, -----	
2002	\$ 163,000
2003	27,000

\$ 190,000
=====

Page F-9

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

NOTE 9 - STOCKHOLDERS' DEFICIT

Series A preferred stock - Series A preferred stock is currently unregistered and convertible into common stock on a one-to-one basis at the election of the holder or automatically upon the occurrence of certain events including: sale of stock in an underwritten public offering; registration of the underlying conversion stock; or the merger, consolidation, or sale of more than 50% of the Company. Holders of Series A preferred stock have the same voting rights as common stockholders. The stock has a liquidation preference of \$0.60 per share plus any accrued and unpaid dividends in the event of voluntary or involuntary liquidation of the Company. Dividends are non-cumulative and payable at the annual rate of \$0.036 per share if, when, and as declared by, the Board of Directors. No dividends have been declared on the Series A preferred stock.

Substantially all of the stock notes receivable stem from a Board of Directors plan for the sale of shares of Series A preferred stock in 1993 to certain officers and directors (Participants). In general, the Participants could purchase the preferred stock for a combination of cash, promissory notes payable to the Company, and conversion of debt and deferred compensation due to the Participants. All shares issued under this plan were pledged to the Company as security for the notes. The notes provided for interest at 8% per annum payable annually, with the full principal amount and any unpaid interest due on January 31, 1997. The notes remain outstanding. The likelihood of collecting the interest on these notes is remote; therefore, accrued interest has not been recorded since the fiscal year ended July 31, 1997.

Series B preferred stock - Series B preferred stock is currently unregistered and each share is convertible into shares of common stock on a two-for-one basis at the election of the holder or automatically upon the occurrence of certain events including: sale of stock in an underwritten public offering, if the offering results in net proceeds of \$10,000,000, and the per share price of common stock is at least \$2.00; and the merger, consolidation, or sale of common stock or sale of substantially all of the Company's assets in which gross proceeds received are at least \$10,000,000. The Series B preferred stock has certain liquidation and dividend rights prior and in preference to the rights of the common stock and Series A preferred stock. The stock has a liquidation preference of \$2.00 per share together with an amount equal to, generally, \$0.14 per share compounded annually at 7% per year from the filing date, less any dividends paid. Dividends on the Series B preferred stock are non-cumulative and payable at the annual rate of \$0.14 per share if, when, and as declared by, the Board of Directors. No dividends have been declared on the Series B preferred stock.

Stock issued for legal settlement - In December 2001, the Company settled an outstanding lawsuit related to warrants that were issued during 1996 in exchange for services performed. The warrants contained a cashless exercise option and were originally set to expire in 1997. The holders of these warrants claimed, however, that the Company had agreed to extend the term. To settle the lawsuit, the Company agreed to issue to the warrant holders 6,000,000 shares of common

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

stock with a fair market value on the date of issuance of \$900,000.

NOTE 10 - STOCK OPTIONS AND WARRANTS

The 1993 Employee and Consultant Stock Plan expires in 2003. Under the Plan, the Company has reserved 30,000,000 shares of common stock for incentive and nonstatutory stock options. Options under the Plan expire over periods not to exceed ten years from date of grant. Options that expire or are canceled may become available for future grants under the Plan. In addition, the Company grants other nonstatutory stock options.

Under the Director Stock Option Plan, the Company reserved 1,500,000 shares of common stock for nonstatutory stock options for nonemployee directors. Options under this Plan are fully vested upon the granting of the options and expire ten years from the date of grant unless terminated sooner or upon termination of the optionee's status as a director. Options that expire or are canceled may become available for future grants under the Director Option Plan. No options are outstanding under this Plan.

The 1996 Stock Option Plan reserves 45,000,000 shares for incentive and nonstatutory stock options during the period of the Plan, which expires in 2006. Options under the 1996 Plan expire over a period not to exceed ten years.

Page F-10

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

The following summarizes common stock option activity (shares in thousands):

	1996 Plan		1993 Plan	
	Shares	Price	Shares	Price
Options outstanding at July 31, 1998	8,439,000	\$ 0.10-0.30	11,383,000	\$ 0.10-
Granted	1,765,000	0.10	--	
Exercised	(1,765,000)	0.30	(113,000)	
Forfeited	(49,000)	0.30	(159,000)	
Options outstanding at July 31, 1999	8,390,000		11,111,000	
Granted	12,339,000	\$ 0.11	--	
Forfeited	(234,000)	0.11-0.30	--	
Options outstanding at December 31, 1999	20,495,000	\$ 0.10-0.30	11,111,000	\$ 0.10-
Granted	3,600,000	0.17-0.30	--	
Exercised	(3,286,000)	0.10-0.30	--	
Forfeited	(344,000)	0.10-0.30	(1,457,000)	
Options outstanding at December 31, 2000	20,465,000	\$ 0.10-0.30	9,654,000	\$ 0.10-

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Granted	7,472,000	0.11-0.18	--
Exercised	(1,805,000)	0.06-0.11	--
Forfeited	(5,266,000)	0.11-0.30	--
	-----		-----
Options outstanding at December 31, 2001	20,866,000	\$ 0.10-0.30	9,654,000 \$ 0.10-
	=====		=====
Weighted average remaining contractual life	3.5 years		1.5 years
	=====		=====

Options exercisable were 26,293,358 and 24,106,626 as of December 31, 2001 and 2000. Options exercisable at December 31, 1999, and July 31, 1999, were 20,879,245 and 18,567,454.

The Company measures its employee stock-based compensation arrangements under the provisions of APB No. 25. Had compensation costs for the Company's stock option plans been determined based upon the fair value at the grant date for awards under these plans consistent with the methodology prescribed under SFAS No. 123, the Company's net loss would have been as follows:

	2001	2000
	-----	-----
Net loss for the year	\$ (3,428,000)	\$ (459,000)
Compensation expense, net of tax effect	776,500	88,000
	-----	-----
Proforma net loss	\$ (4,204,500)	\$ (547,000)
	=====	=====
Proforma earnings per common share	\$ (0.01)	\$ (0.01)

The fair value of options granted were estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

	2001	2000	December 1999	J
	-----	-----	-----	-----
Dividends	0%	0%	0%	
Expected volatility	125%	124%	164%	
Risk-free interest rate	5%	5%	5.88% - 6.69%	5.88% -
Expected life	5 years	5 years	5 years	5

The agreement with Ford Motor Company, as discussed in Note 5, included issuing

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

warrants to Ford to purchase 4.6% of the fully diluted common stock of Enova Systems over a 66 month period. The number of shares to be acquired will be adjusted from time to time for increases in the Company's fully diluted common stock. The vesting of these warrants is dependent upon Ford meeting specific purchase agreements. Warrants issued and vested under this agreement totaled 2,500,000 at an exercise price of \$0.29 per share during the year ended December 31, 2001. Initially, the exercise price of the warrants is equal to the price of the stock on the date of issuance, with the exercise price adjusted when the aggregate number of shares is adjusted. Warrants may not be exercised until July 2003. The fair value of warrants granted were estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: (1) dividend yield of 0%, (2) expected volatility of 102%, (3) risk-free interest rate of 4.76%, and (4) an expected life of the warrants of 66 months.

NOTE 11 - INCOME TAXES

Federal and state income tax regulations impose restrictions on the utilization of net operating losses in the event of an ownership change, as defined by Section 382 of the Internal Revenue Code of 1986. Ownership changes have occurred, with the changes limiting the future availability of net operating loss carryforwards. The extent of the limitation has not been determined.

A valuation allowance is required for those deferred tax assets that are not likely to be realized. Realization is dependent upon future earnings during the period that temporary differences and carryforwards are expected to be available. Because of the uncertain nature of their ultimate utilization, based upon the Company's past performance and the possible limitation on the future availability of net operating losses, as discussed above, a full valuation allowance is recorded against these deferred tax assets.

	2001	2000
	-----	-----
Deferred tax assets		
Federal tax loss carryforward	\$25,692,000	\$24,666,000
State tax loss carryforward	674,000	920,000
Basis difference	1,610,000	1,610,000
Other, net	290,000	218,000
	-----	-----
	28,266,000	27,414,000
Less valuation allowance	28,266,000	27,414,000
	-----	-----
Net deferred tax asset	\$ --	\$ --
	=====	=====

Net operating losses expire as follows:

	Net Operating Loss	
Date of Expiration	Federal	California
-----	-----	-----
2002	\$ 11,000	\$2,778,000
2003	64,000	1,541,000
2004	322,000	709,000
2005	443,000	655,000
2006	680,000	--
2007	2,552,000	--
2008	24,221,000	--
2009	33,460,000	--
2010	9,083,000	177,000

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

2011	5,557,000	1,770,000
2012	2,998,000	--
2013	1,418,000	--
2014	1,965,000	--
2015	322,000	--
2016	3,217,000	--
	-----	-----
	\$86,313,000	\$7,630,000
	=====	=====

Page F-12

ENOVA SYSTEMS, INC. (Formerly U.S. Electricar, Inc.)
NOTES TO FINANCIAL STATEMENTS

NOTE 12 - EXTRAORDINARY ITEM

The Company has been negotiating repayment of long-term trade payables for less than the amounts originally recorded. The gain from these negotiated payments is reflected as an extraordinary item.

In consultation with legal counsel, the Company extinguished certain payables under a provision of the California Code of Civil Procedures. The code's statute of limitations precludes the ability of a creditor to commence an action to recover stale account balances. Upon reviewing the code's provisions, the Company determined that conditions surrounding the application of the statute of limitations had been met; accordingly, the extraordinary item includes the gain from the extinguishments.

NOTE 13 - GEOGRAPHIC AREA DATA

The Company operates as a single reportable segment and attributes revenues to countries based upon the location of the entity originating the sale. Revenues by geographic area are as follows:

	2001	2000	December 1999	July 1999
	-----	-----	-----	-----
United States	\$2,854,000	\$1,003,000	\$ 235,000	\$1,564,000
Korea	483,000	1,670,000	394,000	1,210,000
England	84,000	--	--	--
Canada	--	110,000	--	--
Italy	359,000	100,000	--	--
	-----	-----	-----	-----
	\$3,780,000	\$2,883,000	\$ 629,000	\$2,774,000
	=====	=====	=====	=====

Page F-13

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

(In thousands, except for share and per share data)

	As of March 31,
ASSETS	(Unaudited)
CURRENT ASSETS:	
Cash	\$
Accounts receivable	
Inventory	1
Stockholder receivable	
Prepays and other current assets	
Total Current Assets	3
PROPERTY, PLANT AND EQUIPMENT - NET	
OTHER ASSETS	
TOTAL ASSETS	\$ 4
LIABILITIES AND SHAREHOLDERS' (DEFICIT)	
CURRENT LIABILITIES:	
Accounts payable	\$
Accrued payroll and related expense	
Other accrued expenses	
Bonds and notes payable	
Total Current Liabilities	
ACCRUED INTEREST PAYABLE	
CAPITAL LEASE OBLIGATIONS	
LONG TERM DEBT	3
TOTAL LIABILITIES	\$ 5
SHAREHOLDERS' (DEFICIT):	
Series A preferred stock - No par value; 30,000,000 shares authorized; 2,844,000 shares issued and outstanding at 3/31/02 and 12/31/01	1
Series B preferred stock - No par value; 5,000,000 shares authorized; 1,217,000 shares issued and outstanding at 3/31/02 and 12/31/01	2
Stock notes receivable	(1)
Common Stock - No par value; 500,000,000 shares authorized; 302,532,000 and 302,502,000 shares issued and outstanding at 3/31/02 and 12/31/01	79
Common stock subscribed	
Additional paid-in capital	6
Accumulated deficit	(90)
Total Shareholders' (Deficit)	
TOTAL LIABILITIES AND SHAREHOLDERS' (DEFICIT)	\$ 4

Note: The balance sheet at December 31, 2001 has been derived from the audited financial statements. See notes to financial statements.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

ENOVA SYSTEMS, INC.
 STATEMENTS OF OPERATIONS
 (UNAUDITED)
 (In thousands, except for per share and share data)

	Three
	2002
NET SALES	\$ 941
COST OF SALES	702
GROSS MARGIN	239
OTHER COSTS AND EXPENSES:	
Research & development	275
Selling, general & administrative	615
Interest and financing fees	55
Interest income	(2)
Total other costs and expenses	943
LOSS FROM CONTINUING OPERATIONS	\$ (704)
GAIN ON DEBT RESTRUCTURING	0
NET LOSS	\$ (704)
NET LOSS PER COMMON SHARE:	\$ (0.01)
WEIGHTED AVERAGE SHARES OUTSTANDING	302,532,000

Q-2

ENOVA SYSTEMS, INC.
 STATEMENTS OF CASH FLOWS
 (UNAUDITED)
 (In thousands)

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

	Three Months
	----- 2002 -----
OPERATIONS	
Net loss	\$ (704)
Adjustments to reconcile net loss to net cash used by operating activities:	
Depreciation and Amortization	38
Change in operating assets and liabilities:	
Accounts Receivable	359
Inventory	(420)
Prepays and other assets	31
Accounts payable and accrued expenses	434

Net cash used by operating activities	(263)

INVESTING:	
Purchases of property, plant and equipment, net of disposals	(174)

Net cash used by investing activities	(174)

FINANCING:	
Issuance of notes payable	47
Proceeds from issuance of common stock	3

Net cash provided by financing activities	50

NET INCREASE (DECREASE) IN CASH AND EQUIVALENTS	(387)
CASH AND EQUIVALENTS:	
Beginning of period	1,179

End of period	\$ 792
	=====

Q-3

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. The selling shareholder is offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

TABLE OF CONTENTS

	Page

Prospectus Summary.....	2
Risk Factors.....	7
Cautionary Note on Forward-Looking Statements.....	11
Use of Proceeds.....	12
Price Range of Common Stock.....	12
Dividend Policy.....	13
Capitalization.....	13
Selected Financial Data.....	13
Management's Discussion and Analysis of Financial Condition and Results of Operations.....	15
Business.....	22
Management.....	33
Certain Relationships and Related Transactions.....	42
Principal Shareholders.....	42
Selling Shareholder.....	44
Plan of Distribution.....	45
Description of Capital Stock.....	47
Shares Eligible for Future Sale.....	50
Legal Matters.....	51
Experts.....	52
Where you can get more Information.....	52
Index to Financial Statements.....	53

-2-

PART II

Item 13. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this Registration Statement, all of which will be paid by us. All amounts are estimates, other than the SEC registration fee.

SEC Registration fees:	\$ 85.56
Accounting fees and expenses:	\$ 10,000.00
Legal fees and expenses:	\$ 40,000.00
Printing expenses:	\$ 1,500.00
Blue Sky fees and expenses:	\$ 2,500.00
Miscellaneous fees and expenses:	\$ 5,000.00
Total:	\$ 59,085.56
	=====

Item 14. Indemnification of Directors and Officers

Section 317 of the California General Corporation Law (the "CGCL") provides that

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

a subject corporation shall have the power to indemnify any agent of the corporation (including our directors and officers) who was or is a party to any proceeding or threatened proceeding (other than an action by or in the right of the corporation) against expenses, judgments, fines, settlements and other amounts incurred if that person acted in good faith and in a manner reasonably believed to be in the best interests of the corporation, and in the case of a criminal proceeding, had no reasonable cause to believe the conduct of such person was unlawful. Section 317 of the CGCL further provides that a subject corporation shall have the power to indemnify any agent of the corporation who was or is a party to any proceeding or threatened proceeding by or in the right of the corporation against expenses incurred in connection with the defense or settlement of the proceeding if the person acted in good faith and in a manner the person believed to be in the best interests of the corporation and our shareholders.

Under Section 317 of the CGCL, to the extent that an agent of a subject corporation is successful on the merits in the defense of an action, the corporation must indemnify such person for his or her actual and reasonable expenses incurred in connection with such defense. Under Section 317 of the CGCL, a subject corporation may advance expenses of an indemnifiable person in defending an action; provided that such advancement of expenses may be made only if the person provides an undertaking to reimburse the corporation if it is ultimately determined that the person is not entitled to be indemnified against such expenses.

The Registrant has entered into agreements to provide indemnification for our directors and certain officers in addition to the indemnification provided for in the Bylaws. These agreements, among other things, indemnify such parties to the fullest extent permitted by California law for certain expenses (including attorneys' fees), and all losses, claims,

II-1

liabilities, judgments, fines and settlement amounts incurred by such persons arising out of or in connection with such persons' service as directors or officers of the Registrant or an affiliate of the Registrant.

The above-described provisions relating to the indemnification of directors and officers are sufficiently broad to permit the indemnification of such persons in certain circumstances against liabilities (including reimbursement of expenses incurred) arising under the Securities Act of 1993, as amended.

Item 15. Recent Sales of Unregistered Securities.

In December 2001, we issued 6,000,000 shares of common stock at \$0.15 per share for a total of \$900,000 in settlement of litigation brought against us by Fontal International, Ltd. In April 2002, in connection with this settlement, we issued an additional 100,000 shares of common stock at \$0.15 per share for a total of \$15,000. In May 2002, also in connection with this settlement we issued another 100,000 shares of common stock at \$0.15 per share for a total of \$15,000. These shares are the subject of this registration statement.

In July 2001, Anthony Rawlinson exercised warrants to purchase 8,333,334 shares of common stock at \$0.06 per share for a total of \$500,000. Mr. Rawlinson represented that he was an accredited investor under the definition set forth by the Securities and Exchange Commission. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended (the "Securities

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Act"), for the exemption from registration of the sale of the shares.

In May 2001, Jagen Pty, Ltd exercised warrants to purchase 41,666,666 shares of common stock at \$0.06 per share for a total of \$2,500,000. Jagen, an Australian company and the majority shareholder, represented that they were accredited investors. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act for the exemption from registration of the sale of such shares.

In June 2001, we issued warrants to purchase 15,000,000 shares of our common stock to a customer. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act for the exemption from registration of the sale of such shares.

In September 2000, Perla Blanca Investments, Ltd. purchased 3,333,333 shares of common stock for \$1,000,000. Perla Blanca, a British Virgin Islands company, represented that they were accredited investors. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act for the exemption from registration of the sale of such shares.

In January 2000, Kafig Pty, Ltd. purchased 3,333,333 shares of common stock for \$1,000,000. Kafig, an Australian company, represented that they were accredited investors. We relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act for the exemption from registration of the sale of such shares.

II-2

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

- 3.1 Amended and Restated Articles of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Annual Report on Form 10K for the year ended December 31, 2000 filed on March 30, 2001 and incorporated herein by reference).
- 3.2 Bylaws of Registrant (filed as Exhibit 3.12 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 4.1 Cashless Exercise Warrants dated October 25, 1996 issued to Fontal International, Ltd. (filed as Exhibit 4.1 to the Registrant's Annual Report on Form 10-K for the year ended July 31, 1996, as filed on November 12, 1996, and incorporated herein by reference).
- 5.1* Opinion of Crosby, Heafey, Roach & May Professional Corporation as to the legality of the securities being registered.
- 10.1 Form of Stock Option Agreement under 1993 Employee and Consultant Stock Plan (filed as Exhibit 10.15 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.2 Form of Solar Electric Engineering, Inc. 1993 Employee and Consultant Stock Plan (filed as Exhibit 10.16 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.3 Form of Confidential Private Placement Memorandum and Debt Restructuring Disclosure Statement of U.S. Electricar, Inc.,

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

dated January 2, 1996, delivered by Enova to certain of our unsecured trade creditors, including exhibits (filed as Exhibit 10.91 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1996, as filed on March 18, 1996, and incorporated herein by reference).

- 10.4 Form of Stock Purchase, Note and Debt Exchange Agreement dated January 2, 1996 between Enova and certain unsecured trade creditors (filed as Exhibit 10.92 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1996, as filed on March 18, 1996, and incorporated herein by reference).
- 10.5 Form of Indemnification Agreement (filed as Exhibit 10.63 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.6 Form of Security Agreement made as of May 31, 1995, between Enova and Credit Managers Association of California, Trustee (filed as Exhibit 10.85 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1996, as filed on June 14, 1996, and incorporated herein by reference).
- II-3
- 10.7 Amended 1996 Employee and Consultant Stock Option Plan (filed as Exhibit 10.7 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.8 Stock Purchase Agreement and Technology License Agreement dated February 27, 1997, by and between Enova and Hyundai Motor Company and Hyundai Electronics Industries Co., Ltd. (filed as Exhibit 10.98 to the Registrant's Quarterly Report on Form 10-Q for fiscal quarter ended January 31, 1997, as filed on March 14, 1997, and incorporated herein by reference).
- 10.9 Loan Agreement for \$400,000 convertible promissory note with Fontal International, Ltd., dated April 30, 1997 (filed as Exhibit 10.99 to the Registrant's Quarterly Report on Form 10-Q for fiscal quarter ended April 30, 1997, as filed on June 13, 1997, and incorporated herein by reference).
- 10.10 Agreement of Debt Forgiveness by and between Carl D. Perry and the Registrant dated July 30, 1999 (filed as Exhibit 10.10 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.11 Agreement of Terms by and between the Registrant and Carl D. Perry (filed as Exhibit 10.11 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.12 Securities Purchase Agreement dated as of June 1, 1999, by and between the Registrant and Jagen Pty, Ltd. and Anthony N. Rawlinson (filed as Exhibit 10.12 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

- 10.13 Shareholders' Agreement dated as of June 1, 1999, by and among Jagen Pty, Ltd. and Anthony N. Rawlinson, Carl D. Perry and the Registrant (filed as Exhibit 10.13 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.14 Loan and Security Agreement dated as of June 1, 1999, by and among the Registrant, Jagen Pty, Ltd. and Anthony N. Rawlinson (filed as Exhibit 10.14 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.15 Convertible Secured Promissory Note dated June 1, 1999 by the Registrant in favor of Jagen Pty, Ltd. in the principal amount of \$400,000 (filed as Exhibit 10.15 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- II-4
- 10.16 Letter of Intent (redacted) between Registrant and a domestic supplier, dated December 9, 1999, to design, develop and manufacture low voltage electric drive system components (filed as Exhibit 10.16 to the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2000 and incorporated herein by reference - Confidential treatment requested regarding information within this Letter of Intent).
- 10.17 Put/Call Option to sell Itochu shares between Registrant and Carl D. Perry dated September 1, 1999 (filed as Exhibit 10.16 to the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2000 and incorporated herein by reference).
- 10.18 Agreement (redacted) between the Registrant and a customer, dated June 14, 2001, to develop and produce power management systems. (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for Six Months ended June 30, 2001 and incorporated herein by reference - Confidential treatment requested regarding information within this Agreement).
- 10.19 Form of standard Supplier Agreement between Registrant and customers regarding the purchase, maintenance and warranty of Enova components sold to OEMs and Tier-One suppliers.
- 23.1* Consent of Moss Adams, LLP, Independent Auditor's
- 23.2 Consent of Crosby, Heafey, Roach & May Professional Corporation (included in Exhibit 5.1 hereto).
- 24* Power of Attorney (included on signature page)

* Filed herewith.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

(b) Financial Statements

Audited Financial Statements - Fiscal Year ended July 31, 1999

Audited Financial Statements - Five months ended December 31, 1999

Audited Financial Statements - Fiscal Year ended December 31, 2000

Audited Financial Statements - Fiscal Year ended December 31, 2001

Unaudited Financial Statements - Three Months ended March 31, 2002

II-5

Item 17. Undertakings.

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement; provided, however, that (i) and (ii) do not apply if the Registration Statement is on Form S-3 or Form S-8, and the information required to be included in a post-effective amendment by (i) and (ii) is contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the provisions described in Item 14, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

person of the Registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question

II-6

whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

II-7

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Torrance, State of California, on May 21, 2002.

ENOVA SYSTEMS, INC.

By: /s/ Carl D. Perry

Carl D. Perry, Chief Executive
Officer and Chief Financial Officer

By: /s/ Larry B. Lombard

Larry B. Lombard, Controller

We, the undersigned directors and/or officers of Enova Systems, Inc. (the "Registrant"), hereby severally constitutes and appoint Carl D. Perry with full powers of substitution and resubstitution, our true and lawful attorney, with full powers to sign for us, in our names and in the capacities indicated below, the Registration Statement on Form S-1 filed with the Securities and Exchange Commission, and any and all amendments to said Registration Statement (including post-effective amendments), and any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, in connection with the registration under the Securities Act of 1933, as amended, of equity securities of the Registrant, and to file or cause to be filed with the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney, and his substitute or substitutes, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, and hereby ratifying and confirming all that said attorney or his substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney. This Power of Attorney may be executed in counterparts.

Pursuant to the requirements of the Securities Act of 1933, this registration

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

statement has been signed by the following persons in the capacities and on the dates indicated.

S-1

Name -----	Title -----
/s/ Carl D. Perry ----- Carl D. Perry	Chief Executive Officer, Chief Financial and Director (Principal Executive Officer Principal Financial Officer)
/s/ Anthony N. Rawlinson ----- Anthony N. Rawlinson	Chairman
/s/ Malcolm Currie ----- Malcolm Currie	Director
/s/ Edwin O. Riddell ----- Edwin O. Riddell	Director
/s/ John J. Micek, III ----- John J. Micek, III	Director
/s/ Donald H. Dreyer ----- Donald H. Dreyer	Director
/s/ James M. Strock ----- James M. Strock	Director

S-2

EXHIBIT INDEX

Exhibit Description

3.1 Amended and Restated Articles of Incorporation of the Registrant
(filed as Exhibit 3.1 to the Registrant's Annual Report on Form

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

10K for the year ended December 31, 2000 filed on March 30, 2001 and incorporated herein by reference).

- 3.2 Bylaws of Registrant (filed as Exhibit 3.12 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 4.1 Cashless Exercise Warrants dated October 25, 1996 issued to Fontal International, Ltd. (filed as Exhibit 4.1 to the Registrant's Annual Report on Form 10-K for the year ended July 31, 1996, as filed on November 12, 1996, and incorporated herein by reference).
- 5.1* Opinion of Crosby, Heafey, Roach & May Professional Corporation as to the legality of the securities being registered.
- 10.1 Form of Stock Option Agreement under 1993 Employee and Consultant Stock Plan (filed as Exhibit 10.15 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.2 Form of Solar Electric Engineering, Inc. 1993 Employee and Consultant Stock Plan (filed as Exhibit 10.16 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.3 Form of Confidential Private Placement Memorandum and Debt Restructuring Disclosure Statement of U.S. Electricar, Inc., dated January 2, 1996, delivered by Enova to certain of our unsecured trade creditors, including exhibits (filed as Exhibit 10.91 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1996, as filed on March 18, 1996, and incorporated herein by reference).
- 10.4 Form of Stock Purchase, Note and Debt Exchange Agreement dated January 2, 1996 between Enova and certain unsecured trade creditors (filed as Exhibit 10.92 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1996, as filed on March 18, 1996, and incorporated herein by reference).
- 10.5 Form of Indemnification Agreement (filed as Exhibit 10.63 to the Registration Statement on Form 10 filed on November 29, 1994, and incorporated herein by reference).
- 10.6 Form of Security Agreement made as of May 31, 1995, between Enova and Credit Managers Association of California, Trustee (filed as Exhibit 10.85 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1996, as filed on June 14, 1996, and incorporated herein by reference).
- 10.7 Amended 1996 Employee and Consultant Stock Option Plan (filed as Exhibit 10.7 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.8 Stock Purchase Agreement and Technology License Agreement dated

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

February 27, 1997, by and between Enova and Hyundai Motor Company and Hyundai Electronics Industries Co., Ltd. (filed as Exhibit 10.98 to the Registrant's Quarterly Report on Form 10-Q for fiscal quarter ended January 31, 1997, as filed on March 14, 1997, and incorporated herein by reference).

- 10.9 Loan Agreement for \$400,000 convertible promissory note with Fontal International, Ltd., dated April 30, 1997 (filed as Exhibit 10.99 to the Registrant's Quarterly Report on Form 10-Q for fiscal quarter ended April 30, 1997, as filed on June 13, 1997, and incorporated herein by reference).
- 10.10 Agreement of Debt Forgiveness by and between Carl D. Perry and the Registrant dated July 30, 1999 (filed as Exhibit 10.10 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.11 Agreement of Terms by and between the Registrant and Carl D. Perry (filed as Exhibit 10.11 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.12 Securities Purchase Agreement dated as of June 1, 1999, by and between the Registrant and Jagen Pty, Ltd. and Anthony N. Rawlinson (filed as Exhibit 10.12 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.13 Shareholders' Agreement dated as of June 1, 1999, by and among Jagen Pty, Ltd. and Anthony N. Rawlinson, Carl D. Perry and the Registrant (filed as Exhibit 10.13 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.14 Loan and Security Agreement dated as of June 1, 1999, by and among the Registrant, Jagen Pty, Ltd. and Anthony N. Rawlinson (filed as Exhibit 10.14 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.15 Convertible Secured Promissory Note dated June 1, 1999 by the Registrant in favor of Jagen Pty, Ltd. in the principal amount of \$400,000 (filed as Exhibit 10.15 to the Registrant's Annual Report on Form 10-K for fiscal year ended July 31, 1999, as filed on October 29, 1999, and incorporated herein by reference).
- 10.16 Letter of Intent (redacted) between Registrant and a domestic supplier, dated December 9, 1999, to design, develop and manufacture low voltage electric drive system components (filed as Exhibit 10.16 to the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2000 and incorporated herein by reference - Confidential treatment requested regarding information within this Letter of Intent).
- 10.17 Put/Call Option to sell Itochu shares between Registrant and Carl D. Perry dated September 1, 1999 (filed as Exhibit 10.16 to the

Edgar Filing: ENOVA SYSTEMS INC - Form S-1/A

Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2000 and incorporated herein by reference).

- 10.18 Agreement (redacted) between the Registrant and a customer, dated June 14, 2001, to develop and produce power management systems. (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for Six Months ended June 30, 2001 and incorporated herein by reference - Confidential treatment requested regarding information within this Agreement).
- 10.19 Form of standard Supplier Agreement between Registrant and customers regarding the purchase, maintenance and warranty of Enova components sold to OEMs and Tier-One suppliers.
- 23.1* Consent of Moss Adams, LLP, Independent Auditor's
- 23.2 Consent of Crosby, Heafey, Roach & May Professional Corporation (included in Exhibit 5.1 hereto).
- 24* Power of Attorney (included on signature page)

* Filed herewith.