

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

ENOVA SYSTEMS INC
Form S-1
April 01, 2002

As filed with the Securities and Exchange Commission on February 15, 2002
Registration Statement No. 333-_____

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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

California

3711

(State or Other Jurisdiction of
Incorporation or Organization)

(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 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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	Proposed Maximum Aggregate Offering Price	A	R
Common Stock, no par value	6,000,000	\$ 0.15	\$ 900,000		\$

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.

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 MARCH 28, 2002

Prospectus

6,000,000 Shares
Common Stock

This is a public offering of up to 6,000,000 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 the selling shareholder identified in this

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

prospectus. We will not receive any of the proceeds from the sale of shares by the selling shareholder. The shares offered by this prospectus may be sold from time to time by the selling shareholder 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 March 13, 2002, the OTC Bulletin Board reported that the bid price per share was \$0.155 and the asked price per share was \$0.165.

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

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 March 28, 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 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. 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.

Enova is 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.

Our development and production program with Ballard Power, formerly Ecostar

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. Enova is 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. Enova plans to provide production systems for Ballard in mid 2002.

Enova continues to expand its alliances with Hyundai, Ford, other Original Equipment Manufacturers or "OEMs" and Tier-One suppliers for sales of its automotive products. We offer our modular drive systems to OEMs and other customers. These drive systems have been installed in various passenger vehicles and buses operating in North America, Europe and Asia.

We have successfully integrated our newest hybrid electric Panther™ 120kW drive system (utilizing the Capstone Microturbine 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™ 120kW drive system to Wrights for integration into their Crusader II bus.

-2-

Enova has also delivered seventeen 120 kW hybrid drive systems to Eco Power Technology ("EPT") in Italy along with three 40kW Fast Charger system. EPT is integrating these systems into its midsize shuttle buses and we believe EPT may purchase twenty to thirty additional systems during 2002. EPT is an integrator of medium size transit buses for the European shuttle bus market with key contacts in Rome and Genoa.

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. Enova is developing applications for its products in the telecommunications and distributed generation markets. Discussions are progressing well and we anticipate an initial development contract within the first quarter of 2002.

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, we are integrating, in conjunction with DOT and the State of Hawaii, its drive systems into several vehicles. We completed the manufacture and integration of a Panther™ 120kW drive system into an Enoa trolley for evaluation in the Hawaii tourist market. Enoa operates in the Hawaii tourist industry, providing scenic transportation services to the islands. We will also be upgrading eight Chevrolet S-10 trucks owned by the City of Honolulu to its Panther™ 60kW drive system including its Battery Care Unit (BCU-II) to incorporate fast-charge capability for Hawaii. Also, we are converting an Eldorado 30-foot bus utilizing our Panther™ 120kW drive system for the Hickam Air Force base in Honolulu Hawaii. All of these programs are funded in conjunction with the Hawaii Electric Vehicle Development Project, the U.S. DOT and State of Hawaii.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Our contract with the U.S. DOT to design and test a three-car tram utilizing the Panther 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. Enova intends 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 are continually creating new alliances in these markets for introduction in early 2002.

We have had significant technology advances with Hyundai Motor Company of Korea, or HMC, the world's seventh largest automobile manufacturer, with engineering

-3-

contracts to design, develop and test electric and hybrid electric drive systems and related products. Having successfully completed our hybrid drive system and fuel cell EV program, we are working with HMC to earn the production contract for their upcoming parallel hybrid drive system program. Furthermore, HMC has produced four additional fuel cell SUV's for test and evaluation utilizing our Panther 90kW drive systems.

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

The Offering

Common stock offered by the selling shareholder:	6,000,000 shares
Securities to be outstanding after this offering (1):	302,502,000 shares of common stock
	2,844,336 shares of Series A Co Stock (convertible into an aggr shares of common stock) ("Series A S
	1,217,196 shares of Series B Co Stock (convertible into an aggr shares of common stock) ("Series B St

Voting Rights:

Common Stock:	302,502,000 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 proce of common stock sold by the sellin "Selling Shareholder".
-------------------------------------	--

OTC Bulletin Board symbol:	"ENVA"
----------------------------	--------

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

(1) Securities outstanding on March 13, 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.

-4-

Summary Financial Data

As of and for the year ended December 31, (in thousands, except per share data)	2001	2000	Five Months ended Dec 31 1999	Fiscal Years ending July 31, 1999	1999
	-----	-----	-----	-----	-----
NET SALES	\$ 3,780	\$ 2,883	\$ 629	\$ 2,774	\$ 1,111
COST OF SALES	2,783	2,013	377	1,460	2,013
GROSS MARGIN	997	870	252	1,314	(902)
OTHER COSTS AND EXPENSES					
Research and Development	879	626	262	499	1,111
Selling, general and administrative	2,894	1,999	796	1,141	1,111
Interest and financing fees	113	174	724	724	1,111
Other expense (income)	(7)	6	--	(41)	1,111
Acquisition of research and development	--	--	--	--	1,111
Gain on Warranty Reevaluations	--	--	--	(474)	1,111
Legal Settlements	900	755	125	--	1,111
Total other costs and expenses	4,779	2,880	1,427	1,849	2,013
LOSS FROM CONTINUING OPERATIONS	(3,782)	(2,010)	(1,175)	(535)	(3,924)
GAIN ON DEBT RESTRUCTURING	354	1,551	214	140	1,111
NET LOSS	\$ (3,428)	\$ (459)	\$ (961)	\$ (395)	\$ (3,013)
PER COMMON SHARE:					
Loss from continuing operations	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)
Gain on debt restructuring	--	\$ 0.01	--	--	--
Net loss per common share	\$ (0.01)	\$ 0.00	\$ (0.01)	\$ (0.01)	\$ (0.01)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING	275,189	235,199	251,994	152,077	151,111
Total Assets	\$ 4,340	\$ 3,094	\$ 2,697	\$ 3,940	\$ 1,111
Long-term debt	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,332
Shareholders' equity (deficit)	\$ (232)	\$ (1,648)	\$ (5,015)	\$ (7,316)	\$ (12,221)

-5-

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. However, additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. 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

There has been a limited market for our common stock, an active market may not develop and the market price of our common stock may fluctuate significantly.

Our common stock trades on the OTC Bulletin Board. Securities traded on the OTC Bulletin Board are for the most part thinly traded. We cannot be certain that an active market for our shares will ever develop. Numerous factors, many of which are beyond our control, may cause the market price of the 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 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.

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 December 31, 2001, we had an accumulated deficit of approximately \$90,293,000 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 determine any future dividend policy in light of the all of the foregoing information and then existing conditions, including our earnings, financial

-6-

condition and financial requirements. You may never receive dividend payments from us.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

As of the date of this prospectus, we have outstanding 302,502,000 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."

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, is subject to technological changes and is subject to competition from a variety of companies and industries.

The mobile and stationary power markets including electric vehicle ("EV") and Hybrid EVs ("HEV") continues to be subject to rapid technological change. There are many large and small companies, both domestic and foreign, now in this industry. Most of the major domestic and foreign automobile manufacturers: (1) have 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. Various non-automotive companies are also developing improved electric storage, propulsion

-7-

and control systems. Growth of the present limited demand for electric, hybrid-electric and fuel cell powered vehicles depends upon various factors including:

- o future regulation and legislation requiring more use of non-polluting or low-emission vehicles;

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

- o the environmental consciousness of customers; and
- o the ability of electric and hybrid-electric vehicles to successfully compete with vehicles powered with internal combustion engines on price and performance.

In addition, the stationary power market is still in its infancy. A number of established energy companies are developing new technologies to capture early market share in this promising field. Cost-effective methods to reduce price per kilowatt must be established before the stationary power market becomes viable.

Many of our competitors, both in the automotive and non-automotive industries, are larger and have substantially greater financial, personnel, and other resources than us.

We have increasing and 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. We have been profitable in only one year, fiscal year 1986. In July 2000, we changed our name to Enova Systems, Inc. Our company was previously known as U. S. Electricar, Inc.

For the twelve months ended December 31, 2001, the Corporation lost an additional \$3,428,000 on sales of \$ 3,780,000. There can be no assurance that we will achieve profitability in the near or foreseeable future.

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 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.

-8-

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

We are subject to competitive forces.

There are many companies, including numerous major automobile companies and electronic firms, actively engaged in the research and development of power management and power conversion systems. Many have far greater resources and marketing abilities than we possess.

Our business is subject to rapid technological change.

Our existing products are designed for use with, and are dependent upon, existing electric vehicle 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. There can be no assurance, however, that we will be able to avoid technological obsolescence of our products or that our research and development efforts will be able to adapt to changes in or create the necessary "leading-edge" technology to stay competitive. Further proprietary technology development by others could prohibit us from using our own technology.

There are minimal barriers to entry in our market.

Other than five pending patents, trademarks, trade secrets and distribution agreements with suppliers of subcomponents, 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 production and design 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.

Our industry is affected by political and legislative changes.

Because vehicles powered by internal combustion engines cause pollution, there has been significant public pressure in Europe and Asia, and enacted or pending legislation in the United States at the federal level and in certain states, to promote or mandate the use of vehicles with no tailpipe emissions ("zero emission vehicles") or reduced tailpipe emissions ("low emission vehicles"). Legislation requiring or promoting zero or low emission vehicles is necessary to create a significant market for electric vehicles. The

-9-

California Air Resources Board (CARB) has recently confirmed its mandatory limits for zero emission and low emission vehicles. We cannot assure you there will not be further legislation enacted 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 adversely affect our business prospects if implemented.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

-10-

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 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		Average Daily
	High Price	Low Price	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 (through March 8, 2002)	\$ 0.23	\$ 0.14	332,731

-11-

DIVIDEND POLICY

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 December 31, 2001, we had an accumulated deficit of approximately \$90,293,000. 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 December 31, 2001 and December 31, 2000:

SHAREHOLDERS DEFICIT:

	As of 12/31/2001
Series A preferred stock - No par value; 30,000,000 shares authorized; 2,844,000 shares issued and outstanding at 12/30/01 and 12/31/00	1,86
Series B preferred stock - No par value; 5,000,000 shares authorized; 1,217,000 shares issued and outstanding at 12/30/01 and 12/31/00	2,43
Stock notes receivable	(1,208
Common Stock - No par value; 500,000,000 shares authorized; 302,502,000 and 244,249,000 shares issued and outstanding at 12/31/01 and 12/31/00	79,85
Common stock subscribed	16
Additional paid-in capital	6,94
Accumulated deficit	(90,29
	(232
 Total Shareholders Deficit	 (232
 TOTAL CAPITALIZATION	 \$ (232

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.

SELECTED FINANCIAL DATA

The following selected financial data tables set forth selected financial data for 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 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 elsewhere in this document.

As of and for the year ended December 31, (in thousands, except per share data)	2001 ----	2000 ----	Five Months ended Dec 31 1999 ----	Fiscal Years ending July 31, 1999 ----	1999 ----
NET SALES	\$ 3,780	\$ 2,883	\$ 629	\$ 2,774	\$ 1,314
COST OF SALES	2,783	2,013	377	1,460	2,013
GROSS MARGIN	997	870	252	1,314	(699)
OTHER COSTS AND EXPENSES					
Research and Development	879	626	262	499	1,000
Selling, general and administrative	2,894	1,999	796	1,141	1,000
Interest and financing fees	113	174	724	724	1,000
Other expense (income)	(7)	6	--	(41)	1,000
Acquisition of research and development	--	--	--	--	1,000
Gain on Warranty Reevaluations	--	--	(474)	--	1,000
Legal Settlements	900	755	125	--	1,000
Total other costs and expenses	4,779	2,880	1,427	1,849	2,000
LOSS FROM CONTINUING OPERATIONS	(3,782)	(2,010)	(1,175)	(535)	(3,000)
GAIN ON DEBT RESTRUCTURING	354	1,551	214	140	1,000
NET LOSS	\$ (3,428)	\$ (459)	\$ (961)	\$ (395)	\$ (3,000)
PER COMMON SHARE:					
Loss from continuing operations	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)
Gain on debt restructuring	--	\$ 0.01	--	--	--
Net loss per common share	\$ (0.01)	\$ 0.00	\$ (0.01)	\$ (0.01)	\$ (0.01)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING	275,189	235,199	251,994	152,077	151,000
Total Assets	\$ 4,340	\$ 3,094	\$ 2,697	\$ 3,940	\$ 1,000
Long-term debt	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,332	\$ 3,000
Shareholders' equity (deficit)	\$ (232)	\$ (1,648)	\$ (5,015)	\$ (7,316)	\$ (12,000)

-13-

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 2001 Financial Statements and Notes thereto. The matters addressed in this Management's Discussion and

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

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, Enova performs research and development to augment and support others' and our own related product development efforts.

Enova's 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, Enova provides products and services to leverage its 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.

The financial statements present our financial condition as of December 31, 2001 and 2000, the results of operations and cash flows for 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.

-14-

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 U.S. DOT. Our 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

and seek additional alliances to market our products. As of March 8, 2002, we have no firm commitments for additional financing.

The financial statements present our financial condition at December 31, 2001 and 2000.

Three Years Ended December 31, 2001

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 Department of Transportation or 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 Motor Company of Korea or HMC, 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 PantherTM drive systems for their electric vehicles. Our Company has also developed a high power charger for use with its drive systems. HMC has adapted a customized version of the PantherTM 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. Enova is designing and manufacturing the electronics for the drive system as well as certain auxiliary components. The final prototype systems are currently undergoing pre-

-15-

production testing and validation in the Ford Th!nk vehicle. We continue to develop our relationships with Hyundai, Ballard and other Original Equipment Manufacturers or OEMs and Tier-One suppliers for sales of its automotive products. We offer modular drive systems to OEMs and other customers. These drive systems have been installed in various vehicles operating in North America, Europe and Asia.

In 2001, Enova entered into several key supplier agreements and commenced new development programs with automotive and transit OEMs 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 Enova was selected by Ford Motor Company's Th!nk brand to develop and manufacture a high power, high voltage conversion module "HEC" for their upcoming fuel cell vehicle. The HEC module will convert high voltage power from the fuel cell into a lower voltage. Enova is currently in the second phase of this program having successfully designed and tested the proof of concept prototype.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 meeting specific milestones with regards to new production programs between Ford and Enova. The relationship will last for five years during which Ford will evaluate Enova for future programs.

Our development and production program with Ballard Power for low voltage electric drive system components for use in Ford's Global Think 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. Enova is designing and manufacturing the electronics for the drive system including the power inverter, charger and controller. In conjunction with Hyundai Autonet of Korea, Enova is finalizing production planning for initial production systems to be delivered in mid 2002. We anticipate these systems to provide significant revenues in the upcoming years.

Hyundai Motor Company Programs

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

HMC continues to contract with Enova for the development of advanced hybrid and fuel cell powered drive systems. In regards to passenger vehicle programs, Enova continues in our efforts to develop a commercially producible parallel hybrid motor and controller for HMC's new hybrid vehicle to be introduced in 2004. The first prototype for this program

-16-

will be delivered in the first quarter of 2002 for evaluation. This program is a result of Enova's ongoing development efforts with HMC since 1995.

We anticipate additional contracts for both development and purchase of our components during 2002 for HMC's alternative vehicle applications.

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, we are also selling Panther 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 90kW drive systems for 2002-2003 from an integrator of specialty vehicles in the U.S. Additionally, we are discussing further sales of this system configuration to other domestic and international customers.

Heavy-Duty Drive Systems

Sales of Panther 120kW drive systems continue to provide increased revenues for our company. We have entered into supplier agreements with manufacturers in Europe and Japan as well as domestically.

Eco Power Technology "EPT" in Italy purchased 15 Panther 120 electric drive systems, which were delivered during the 2001, as well as three of our Fast Chargers. Under the terms of our supplier agreement, EPT has given notice of

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

their production requirements for 2002, which range from 25 - 30 Panther 120 systems and additional Fast Chargers. EPT is one of the largest integrators of medium size transit buses for the European shuttle bus market with key customers in Rome and Genoa.

Wrights Environment, a division of Wrights Bus, one of the largest low-floor bus manufacturers in the United Kingdom, has integrated Enova's hybrid electric Panther™ 120kW drive system (utilizing the Capstone Microturbine 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. Furthermore, 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.

Enova has entered the Japanese bus market with two new customers, Tomoe Electro-Mechanical Engineering and Manufacturing, Inc. "Tomoe" and Moriah Corporation. Both of these companies have entered into supplier agreements with us. Enova has delivered its first Panther 120 system to Tomoe and believes both companies will purchase additional systems during the first half of 2002.

The development of the Southern California Edison utility vehicle utilizing Enova's 120kW drive system and Capstone's 30kW microturbine continues on schedule. Enova is developing additional power management accessories for this vehicle so it can run power applications such as drills and motors for use by the technicians. This line service truck is

-17-

a demonstration vehicle, which will potentially lead to sales to utility companies throughout the U.S.

In the high performance heavy-duty drive system area; we have completed the first prototype of our Panther 204kW 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 of the United Kingdom, Hyundai Motor Company and a major alternative transit bus manufacturer in the U.S. regarding the purchase of these drive systems in 2002.

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, HMC 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 Battery Care Unit "BCU II" to allow 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 is positive.

Our contract with the DOT to design and test a three-car tram utilizing the Panther 120kW drive system has been completed and has been delivered to the High Technology Development Corporation's "HTDC" facility in Honolulu. This tram, capable of carrying 100 passengers, will now be delivered to the Honolulu International Airport for further test and evaluation. We intend to market this tram system to international markets for application to other airports, national

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

We will continue to establish new development programs with the Hawaii HTDC as well as other state and federal government agencies as funding becomes available in our areas of research.

Stationary Power Applications

-18-

Enova's 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 Enova. Enova is developing applications for our products in the telecommunications and distributed generation markets.

Enova's Fuel Cell Care Unit "FCU" is being delivered to UTC Fuel Cell, a division of United Technologies, for use in their stationary fuel cell systems. To date, we have delivered approximately 20 FCUs to UTC Fuel Cell and Hamilton Sundstrand. The Hyundai companies have expressed interest in working with Enova on the development of advanced fuel cell management technologies as well as other domestic energy companies. We believe this market will play a key role in our future and continues to pursue alliances with leading manufacturers in this space.

Enova views stationary power applications of our power management systems as an important new strategy for product development. In the stationary power management field, Enova is 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, Avestor and IFC have the potential to assist Enova in penetrating these markets. As discussed earlier, Enova is now producing and selling an advanced version of our BCU-II and FCU for use with fuel cells in both stationary and mobile systems, starting with IFC and ISE Research.

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 common stock of Enova Systems to Ford Motor Company with respect to a participation program.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. Enova intends to vigorously pursue obtaining additional equity capital in order to fund new product development and enhance our NASDAQ listing to the National NASDAQ Market.

Liquidity and Capital Resources

-19-

Enova has 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 we will require additional outside financing for at least the next twelve months.

During the year ended December 31, 2001, our operations required \$3,023,000 more in cash than was generated. Enova continues 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 EPT, Ford, Ballard and other, 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 Enova technology.

As of December 31, 2001, we eliminated our antecedent accounts payable of \$210,000 as of December 31, 2000.

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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

RESULTS OF OPERATIONS

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

-20-

further expansion into production programs of our Panther 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 sales for 2002. During 2001 and 2000, we continued to add employees to 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 Enova by Fontal International. The settlement requires us to issue 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.

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

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.

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

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.

-23-

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 and \$42,000 in 1998.

As a result of the foregoing changes in net sales, cost of sales, other costs

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 HMC and Hyundai Heavy Industries ("HHI"). 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 HHI. 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 HHI

-24-

for \$600,000. Secondly, we increased engineering, development and testing of electric and hybrid drive trains and related components in conjunction with Hyundai Motor Company of Korea and the U.S. Government through United States Postal Service, DARPA and DOT programs. Of our total sales for 1999, \$1,954,000, or 70% were revenues realized on engineering contracts with DARPA, the Hyundai Group of Korea 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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):

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

-25-

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.

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

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

In 1998, we restructured our top management, realigned our product base and concentrated on the reduction of overall company operating costs. We closed facilities,

-26-

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.

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 Department of Transportation or 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 HMC, 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™ drive systems for their electric vehicles. Our Company has also developed a high power charger for use with our drive systems. HMC has adapted a customized version of the Panther™ 60 for their production electric vehicle, the Santa Fe sports utility vehicle.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. Enova is 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 or OEMs and Tier-One suppliers for sales of our automotive products. We offer our modular drive systems to OEMs and other customers. These drive systems have been installed in various vehicles operating in North America, Europe and Asia.

In 2001, Enova entered into several key supplier agreements and commenced new development programs with automotive and transit OEMs both domestically and internationally. Additionally, we completed various research and development programs sponsored by the U.S. Government and private corporations.

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, Enova has entered into 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 Wrights' low floor, mid-size buses for sale in the United Kingdom and the European Continent. In January 2001, Enova received an order for a Panther 120kW hybrid drive system from Wrights which utilizes the Capstone microturbine as our primary power source.

-27-

We continue to expand our markets by creating alliances with other component suppliers. Capstone Turbine has recently teamed with us to jointly develop and market hybrid electric drive systems using Capstone's microturbine in conjunction with our power management and drive systems. We currently utilize Capstone's microturbine in our drive systems for Eco Power Technology (EPT) in 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 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 Enova/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 a electric trolley for the Hawaii market in conjunction with the DOT and Enova, 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

We continue to further our relationship with Hyundai Motor Company of Korea, or HMC, the world's seventh largest automobile manufacturer, with 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 HMC's new Santa Fe sport utility vehicle. HMC has adapted a customized version of the Panther(TM) 60 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 HMC.

We view stationary power applications of our power management systems as an important new strategy 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, Avestor and IFC 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 FCU (Fuelcell Care Unit) for use with fuel cells in both stationary and mobile systems, starting with IFC and ISE Research.

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

-28-

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 obtaining additional equity capital in order to fund new product development and enhance our NASDAQ listing to the National NASDAQ Market. 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 it 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 ("ZEV"). The State of California delayed the mandated introduction of ZEVs from 1998 to 2003 and established a required percentage of ZEV and new hybrid-electric vehicles for 2003 at 10% of total new vehicle sales in California from the six major

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. Enova Systems has 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 ourselves 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. Enova is now entering stationary power markets with our power management systems and intends to develop other systems to monitor and control the complex fuel cell and ancillary device systems being developed for distributed generation and mobile applications.

Enova continues to seek and establish alliances with major players in the automotive,

-29-

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, Enova has begun to partner with Ford and Ballard on other automotive programs and is 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. 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. Enova believes 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.

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, Enova designs our products to QS9000 manufacturing and quality standards. Enova's 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 OEM 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 Enova to search out and work with a number of the best QS 9000-certified manufacturers worldwide. Enova's strategy ensures that our OEM customers have the highest confidence in our products, and receive the highest-quality products.

Products

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Enova's 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. Enova's 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 micro turbine based systems, and stationary power generation all require some type of power management and conversion mechanism. Enova Systems supplies these essential 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.

Enova is moving to expand our product base into new markets outside of the traditional electric and hybrid-electric automotive fields. Key areas which Enova has begun to

-30-

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. Enova has entered into agreements or begun discussions with various alternative power generation manufacturers such as Capstone Turbine and International Fuel Cells, as well as others. Enova believes our enabling technologies will prove beneficial to these types of companies in their strategies to bring these new power systems to commercialization.

Enova has embraced fuel cell technology and has 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™ Electric and Hybrid-Electric Drive Systems

Enova's Panther electric drive system provides all the functionality one would find under the hood of an internal combustion engine powered vehicle. The Panther 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.

Enova's 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.

Electric Drive Motors

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 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

-31-

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. Enova also offers 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 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

The Enova Panther 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 120/30 kW series hybrid system uses the 120kW electric drive components to propel the vehicle, and uses a 30kW micro-turbine 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 for the electric drive family.

Enova's hybrid systems are designed to work with a variety of hybrid power generation technologies. In our 120/60kW hybrid system, an internal combustion 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 IFC system, or many others. In all of these examples, Our battery management system provides the power management to allow for proper power control.

Enova Systems will pursue a two-part market penetration strategy. Initial development will focus on power management and power conditioning components to be marketed directly to key DG System suppliers. By moving aggressively, Enova hopes to capture early market share as a key component supplier for these companies.

The second part of the strategy is the development of complete DG systems for first the residential market, and then the commercial/industrial market. These systems would be marketed through well-known and well-established distribution company such as Wal-Mart, Home-Depot or others. These companies have the

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

existing infrastructure necessary to support the sale, installation, and field servicing of the units.

Battery Care Unit

We place a great amount of focus on our power management systems. Enova's Battery Care Unit "BCU" 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

-32-

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.

Our BCU 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. The BCU reports state-of-charge, amp hours and kilowatt-hours.

The BCU 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 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 directly interfaces with the Panther and other drive systems, and 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 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 to update, store and report key battery pack parameters such as amp hours, kilowatt-hours and state of charge. Using Enova's proprietary Windows(TM)-based diagnostic software, the BCU 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

Enova has reconfigured our BCU to perform the critical role of hybrid controller. The Hybrid Control Unit "HCU" continuously monitors the condition of the battery pack through communications with the BCU, monitors the driver commands through communications with the motor controller, and the state of the hybrid generator. Based upon the data received, the HCU 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Safety Disconnect Unit

The Safety Disconnect Unit "SDU" is under the control of the BCU, 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

-33-

chassis. In the event a ground isolation fault is detected, the BCU commands the SDU to break the battery connection. The SDU is available in two configurations to match the requirements of the drive 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 developed in conjunction with Hyundai Motor Company for Hyundai electric vehicles initially. The Fast Charger is also ideal for small or shuttle buses, trams and trucks. We are currently selling rapid chargers to EPT of Italy.

Fuel Cell Power Conditioning Unit

Enova's has developed and is 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 Turbine, 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.

50kW ICE Generator Unit

Enova provides 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 product line. The same Hybrid Control Unit that controls the Capstone micro-turbine in other Enova series hybrid configurations provides power command, start command, and stop commands.

Fuel Cell Management Unit

Enova has added a Fuel Cell Control Unit (FCU) to broaden our market in the power management field. The FCU is designed to manage fuel cell powered systems whether stationary or mobile such as automobiles. The FCU can be adapted to regulate the input and output to and from the fuel cell as well as regulate temperature and communications. Enova continues to develop our current systems for new products and markets.

Enova has 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 unit, the FCU, is currently being used by UTC Fuel Cells as a Fuel Stack Management System.

An internal real-time clock allows the FCU to wake up at user-specified times to

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

-34-

associated with other types of sensors. The non-volatile RAM allows the FCU to update, store and report key battery pack parameters such as amp hours, kilowatt-hours and state of charge. Using Enova's proprietary Windows(TM)-based diagnostic software, the FCU control parameters can be programmed in-system. Additionally, fuel cell performance can be monitored in real-time. Reports can be output to a laptop computer.

Distributed Power Generation for Industrial / Commercial / Residential Applications

Enova's 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, Enova 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 Battery Care Unit (BCU II) 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.

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 Enova 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 communications link. The 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.

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 or LEVs but not in markets where government mandates call for zero emission vehicles or ZEVs. Enova is 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

the industry matures, key

-35-

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

Research and Development

Enova believes 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:

- *Power Control and Drive Systems and related technologies for vehicle applications;
- *Stationary Power Management and Conversion and related technologies;
- *Heavy Duty Drive System development for Shuttle and Transit Buses;
- *Systems Integration of these technologies;
- *Technical and product development under DARPA/DOT and Hyundai Group Contracts; and
- *OEM 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. Enova 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

Enova currently holds one patent for crash management safety, which was originally issued in 1997, and has submitted applications for four additional patents and several trademarks or service marks in the United States. 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, there can be no assurance that patent applications filed by us will result in patents being issued. Moreover, there can be 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, there can be no assurance that these measures will be successful. In the event of litigation to determine the validity of any third party claims

-36-

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

such litigation could result in significant expense to Enova. 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 December 31, 2001, 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 departmental breakdown of these individuals includes 3 in administration, 1 in sales, 30 in engineering and research and development, and 11 in production.

Facilities

Enova's 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. Enova also has 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 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 10Q. The suit alleged breach of contract with respect to certain warrants to purchase 10,833,332 shares of Enova System's common stock. The settlement agreement requires us to issue 6,000,000 shares of common stock which are to be registered and freely tradable on, or before, March 31, 2002.

-37-

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, Financial Officer and Secretary
Malcolm R. Currie, Ph.D. (1)	72	Director
Donald H. Dreyer (2)	64	Director
John J. Micek III (2)	49	Director

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Edwin O. Riddell (1)	59	Director
James M. Strock	46	Director

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

-38-

B.S. in Political Science from the University of California at Los Angeles.

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

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

-39-

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. 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 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Each of the directors is elected to serve a one-year term and until his successor is 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

-40-

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.

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.

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

Option/SAR Grants

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

-41-

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

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 of the 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 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

-42-

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 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 Enova 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 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

possessing more than 10% of the voting power of all classes of Enova 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.

-43-

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 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 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.

-44-

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 limits 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.

- 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.

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.

-45-

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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:

- 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

The following table sets forth certain information regarding beneficial ownership of our stock as of March 8, 2002, (i) by each person (or group of affiliated persons) who is

-46-

known by Enova 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 below, 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

Name	Shares Beneficially Owned (1)	Percentage of Shares Beneficially Owned (2)
Jagen, Pty., Ltd. 9 Oxford Street, South Yorra 3141 Melbourne, Victoria Australia	125,000,000	35.
Carl D. Perry c/o Enova Systems, Inc. 19850 South Magellan Drive Torrance, CA 90502	11,200,500 (4)	3.
Citibank N.A. 111 Wall Street, 8th Floor New York, NY 10043	31,655,754	8.
Anthony N. Rawlinson c/o Enova Systems, Inc. 19850 South Magellan Drive Torrance, CA 90502	25,208,873	7.
John J. Micek, III	817,383 (5)	
Edwin O. Riddell	447,445	
Dr. Malcolm Currie	325,878	
Donald H. Dreyer	212,646	
James M. Strock	67,056	
Delphi Delco Electronics (6)	1,278,720	
Jean Schulz (7)	1,329,111	
All Directors and executive officers as a group (7 persons)	38,279,781 (8)	10.

SELLING SHAREHOLDER

The following table sets forth information, as of February 1, 2002, with respect to the selling shareholder. We issued the shares of our common stock being offered by the selling shareholder in a private placement in December 2001. We issued 6,000,000 shares of our common stock at a price equivalent to \$0.16 per share. The shares were issued as consideration for the out-of-court settlement of a lawsuit brought against us by Fontal International, the selling shareholder. This prospectus covers the resale by the selling shareholder of these shares, 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 the selling shareholders 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 pursuant to

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

this prospectus by the selling shareholder from time to time. Accordingly, no estimate can be given as to the amounts of shares of our common stock that will be held by the selling shareholder upon consummation of any such sales. In addition, the selling shareholder 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.

-48-

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

-49-

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

(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 the selling shareholder. The ownership percentage listed in these columns includes only shares beneficially owned by the selling shareholder. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In computing the percentage of shares beneficially owned by the selling shareholder, 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 outstanding for the purpose of computing the percentage ownership of any other person. The ownership percentage is calculated assuming that 297,227,095 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 6,000,000 of the shares of our common stock offered by this prospectus on behalf of the selling shareholder, and will receive no proceeds from this offering.

The selling shareholder, or pledgees, donees, transferees or other successors-in-interest selling shares received from the selling shareholder 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. The selling shareholder 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. The selling shareholder 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;

-50-

- 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 the selling shareholder;

- 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 the selling shareholder may arrange for other broker-dealers to participate in the resales.

The selling shareholder 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 selling shareholder. The selling shareholder also may sell shares short and redeliver the shares to close out such short positions. The selling shareholder 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. The selling shareholder 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, discounts or concessions from the selling shareholder. 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 the selling shareholders 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 the selling shareholder may be deemed to be underwriters within the meaning of Section 2(11) of the Securities Act, the selling shareholder 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. The selling shareholder has advised us that it has not entered into any agreements, understandings or arrangements with any underwriters or

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 by the selling shareholder.

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

-51-

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 advised the selling shareholder 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 available to the selling shareholder and we have informed it 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.

The selling shareholder 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 par value, and 35,000,000 shares of preferred stock. We currently have 303,227,095 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

-52-

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 any 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.

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.

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

sale of more than fifty percent (50%) of our outstanding voting securities or a sale of all or

-53-

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 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 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 February 1, 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.

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 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. 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

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. Statements contained in

-56-

this prospectus regarding the contents of any contract or any other document to which reference is made are not necessarily complete, and, in each instance, reference is made to the copy of the contract or other document filed as an exhibit to the registration statement, each statement being qualified in all respects by the reference. 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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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.

-57-

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

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.

6,000,000 Shares
ENOVA SYSTEMS, INC.
COMMON STOCK

TABLE OF CONTENTS

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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	
		PROSPECTUS
		March 28, 2002

-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:	\$	82.80
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:	\$	59,082.80
		=====

Item 14. Indemnification of Directors and Officers

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 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. Enova relied on Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended (the "Securities 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. Enova 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. Enova 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. Enova 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.

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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. Enova 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., 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 24 10-Q for the

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

quarter ended April 30,

II-3

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 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).

II-4

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

- 10.16 Letter of Intent 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).
- 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).
- 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.

(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

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

II-5

(iii) To include any material information with respect to the plan of

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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 is there a stray paragraph there? controlling 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 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-6

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 March 28, 2002.

ENOVA SYSTEMS, INC.

By: /s/ Carl D. Perry

Carl D. Perry, Chief Executive Officer

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

Edgar Filing: ENOVA SYSTEMS INC - Form S-1

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

Name -----	Title -----	Date -----
/s/ Carl D. Perry ----- Carl D. Perry	Chief Executive Officer, Chief Financial Officer and Director (Principal Executive Officer and Principal Financial Officer)	March 28,
/s/ Anthony N. Rawlinson ----- Anthony N. Rawlinson	Chairman	March 28,
/s/ Malcolm Currie ----- Malcolm Currie	Director	March 28,
S-1		
/s/ Edwin O. Riddell ----- Edwin O. Riddell	Director	March 28,
/s/ John J. Micek, III ----- John J. Micek, III	Director	March 28,
/s/ Donald H. Dreyer ----- Donald H. Dreyer	Director	March 28,
/s/ James M. Strock ----- James M. Strock	Director	March 28,

EXHIBIT INDEX

Exhibit Description