

Enova Systems Announces Q1 2011 Revenue Growth of 217% and 7th Consecutive Quarterly Report with Positive Gross Margins

Also Announces Expansion in China and Europe

TORRANCE, CA May 17, 2011 - Enova Systems, Inc. (NYSE AMEX: ENA and AIM: ENV and ENVS), a leading developer of proprietary hybrid electric and all-electric drive systems and drive system components for the emerging green commercial vehicle market, announces its financial results for Q1 2011. Along with aggressive pursuit of North American opportunities, the company highlights expanding their market via China Southern Rail Corporation Limited (CSR), and a major United Kingdom (UK) based OEM.

GROWTH HIGHLIGHTS:

- \$2.9M in revenue for Q1 2011, an increase of 217% over the same period in 2010
- 164% increase in gross income for Q1 2011 over the same period in 2010
- 7th consecutive quarter with positive gross margins

Enova President and CEO Mike Staran stated "Our 1st quarter revenues showed solid volume and our 7th consecutive quarter with positive margins. In conjunction with our aggressive efforts in North America, our new incremental relationships formed in China and Europe allows us dramatically improved opportunity." Staran added, "On the heels of another positive quarter, we anticipate that our current cash balance and projected cash inflow from customer receivables will be adequate to meet our working capital and capital expenditure needs for at least the next 12 months."

CUSTOMER HIGHLIGHTS:

Confirming Q1 2011 performance, Enova shipped the following:

- Charge-depleting plug-in hybrid school bus systems delivered to Navistar
- Full EV drive systems and other system components delivered to Smith US (SEV) and Smith Europe
- Pre-transmission sets delivered to First Auto Works (FAW)
- Post Transmission sets delivered to First Auto Works (FAW)
- Full EV drive systems and other system components delivered to Freightliner Custom Chassis (FCCC)

Enova Chief Financial Officer John Micek said, "With consistent, positive margin quarters and recurring core customer revenue, our management team has started entertaining preparations for conference calls to discuss financial results."

Additional incremental customer highlights include:

FIRST AUTO WORKS (FAW) has expanded their market opportunity by joint development, with Enova, of a post transmission system option. Additionally, FAW recently won China's prestigious BAAV Best HEV Bus award for 2010.

SMITH ELECTRIC VEHICLES (SEV) and Enova have begun shipment of its 90kW all-electric drive system for integration into the Smith Edison Vehicle, currently manufactured in the UK.

CHINA SOUTHERN RAIL CORPORATION LIMITED (CSR) has recently purchased two (2) all-electric drive systems for integration into

commercial bus applications. CSR is approved by the State-owned Assets Supervision and Administration Commission of the State Council, was co-founded by China South Locomotive and Rolling Stock Industry Group Corporation and Beijing Railway Industry Economic and Trade Company with a total equity capital of \$7 billion USD. The company was established in December 2007 with sixteen (16) fully funded holding companies and over 80,000 employees distributed in 10 provinces and cities around the country.

A MAJOR UK BASED OEM has recently awarded Enova a contract as the production drive system supplier for their all electric buses. The yet to be announced OEM designs, manufactures and sells single deck and double deck buses and mini coaches. Its buses operate in the UK, Continental Europe, and North America.

US AIR FORCE and the Warner Robins Air Logistics Center Vehicle Directorate hosted the 2011 Vehicle Transportation Acquisition Council (VTAC) Conference at Robins AFB, Georgia from April 6 - 7, 2011. Attendees from all the Air Force Major Command Headquarters Transportation / Vehicle Maintenance staff along with representatives from the Vehicle Directorate at Robins AFB and from Air Force Bases across the country were in attendance. Enova was one of only two suppliers invited to present at the morning briefing. This briefing was key to showcasing the benefits of a non-invasive, retrofit solution to the USAF's existing Flightline van fleet. Enova highlighted the retrofit, in a post-transmission parallel hybrid configuration, to key personnel like Colonel Michael Holl, Director Support Equipment and Vehicles Division, Robins Air Force Base, GA.

US GOVERNMENT and Enova have had recent comprehensive discussions regarding government interest in deployment of alternate fuel vehicles. Enova has met with executive levels at the Pentagon to further penetrate the available volume of government sourced vehicles.

TECHNOLOGY HIGHLIGHTS:

OMNI INVERTER. Power-source and motor design agnostic, Enova's Omni-series inverter/vehicle controller offers increased flexibility and ease-of-integration. With plug-and-play connectivity, it is compatible with a wide range of vehicle drive systems and motors, and can be configured for HEV, PHEV and EV applications. The inverter is fully production validated and Enova is currently coordinating introduction of the Omni inverter with various customers.

OMNI CHARGER. Enova is finalizing design and validation test plans for the new Omni-series 10kW on-board battery charger for plug-in hybrid-electric and all-electric vehicles. CAN control based, the new Omni charger offers increased flexibility, ease-of-integration and compatibility with a wide range of vehicle platforms. Enova is coordinating the introduction of the new charger with various customers. Production availability is planned for later in 2011.

OMNI DC/DC CONVERTER. Design has begun on a stand-alone Omni-series DC/DC converter operating at the higher power levels required for large electric vehicles. The new converter will be available in 12V or 24V output configurations. Validation testing is planned to begin summer 2011 with introduction discussions already underway with various customers.

Enova Chief Operating Officer John Mullins added, "The next generation Omni series will be compatible with a wide range of HEV, PEV, and EV applications. We are excited to bring reduced cost, more power and value to our customers as we move into economies of scale."

OTHER ENOVA ACTIVITIES:

Enova recently spoke (or will speak) at:

- US Army's Tank Automotive and Armaments Command (TACOM) on April 19th
- Electric Drive and Transportation Association (EDTA) conference on April 20-21st
- US Pentagon on April 21st
- Lazard Capital Market's 3rd Annual Alternative Energy Investor Summit in New York on June 1-2. The Summit will provide extensive opportunity for analysts and investors to meet with Enova on a "one on one" basis.

About Enova:

Enova Systems (<http://www.enovasystems.com>) is a leading supplier of efficient, environmentally friendly digital power components and systems products. The Company's core competencies are focused on the development and commercialization of power management and conversion systems for mobile applications. Enova applies unique 'enabling technologies' in the areas of alternative energy propulsion systems for light and heavy-duty vehicles as well as power conditioning and management systems for distributed generation systems. The Company develops, designs and produces non-invasive drive systems and related components for electric, hybrid-electric, and fuel cell powered vehicles in both the "new" and "retrofit" vehicle sales market. For further information, contact Enova Systems directly, or visit its Web site at <http://www.enovasystems.com>.

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Additional Information:

This news release contains forward-looking statements relating to Enova Systems and its products that are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. These statements can be identified by the use of forward-looking terminology such as "believe," "expect," "may," "will," "should," "could," "project," "plan," "seek," "intend," or "anticipate" or the negative thereof or comparable terminology and statements about industry trends and Enova's future performance, operations and products. These forward-looking statements are subject to and qualified by certain risks and uncertainties. These and other risks and uncertainties are detailed from time to time in Enova Systems' periodic filings with the Securities and Exchange Commission, including but not limited to Enova's annual report on Form 10-K for the year ended December 31, 2010.