

ClearSign Combustion Corporation Announces Second Quarter 2012 Results

SEATTLE, WA -- (MARKETWIRE) -- 08/06/12 -- ClearSign Combustion Corporation (NASDAQ: CLIR), an emerging leader in combustion and emissions control technology for industrial, commercial and utility markets, today announced its results for the second quarter ended June 30, 2012. The Company incurred losses of \$1,020,000 and \$1,884,000 for the three months and six months ended June 30, 2012, respectively, as compared to losses of \$706,000 and \$1,598,000 for the same periods in 2011. Research and development costs totaled \$291,000 and \$556,000 for the three months and six months ended June 30, 2012, respectively, as compared to \$97,000 and \$120,000 for the same periods in 2011, reflecting increased personnel levels and research activities in 2012. General and administrative costs increased to \$734,000 for the three months ended June 30, 2012 as compared to \$610,000 for the same period in 2011, but were reduced to \$1,334,000 for the six months ended June 30, 2012 as compared to \$1,479,000 for the same period in 2011, reflecting increased personnel levels in 2012, which was offset by non-recurring consulting expenses of \$325,000 and \$1,000,000 for the three months and six months ended June 30, 2011, respectively. As a development stage company, ClearSign has recorded no revenue to date.

With the completion of its initial public offering in the second quarter of 2012 and issuance of shares for work related to the IPO at \$4.00 per share, the Company raised net proceeds of \$11,640,000.

Working capital at June 30, 2012 totaled \$10,507,000, including cash and cash equivalents of \$10,758,000. Management expects these funds to be sufficient to fund activities at least through April 2014.

"We continue to enjoy meaningful success in meeting both technology and business development objectives," said Rick Rutkowski, ClearSign CEO.

"A key objective in our path to commercialization is to scale our system to a commercially relevant thermal output. We have set a goal to achieve our first demonstration scale of 1,000,000 Btu/hr by the end of this year and we are well on our way to achieving that milestone. Our goal had been to operate the system at 250,000 Btu/hr by the end of the second quarter. In mid-June, we announced that we had demonstrated unique flame-attachment effects at 400,000 Btu/hr, exceeding our target and allowing us to achieve flame stability against a high velocity gas jet. This has significant implications for enabling improvements to burner design for both pre-mix and diffusion type burners.

"In late June, we reported that we had successfully used this technique to reduce Nitrogen Oxide (NOx) emissions to less than fifteen parts per million (ppm), a level on a par with commercially available ultra-low NOx burners. Moreover, we were able to achieve this substantial NOx reduction with a much simplified burner design (as compared with conventional low NOx and Ultra-low NOx burners). We used no fans to promote flue gas recirculation and were able to maintain oxygen and excess air at very low levels, both important features for maximizing system efficiency and throughput. We believe that this is a noteworthy achievement and is a good example of how the use of Electrodynamic Combustion Control™ (ECC™) technology can provide powerful new design options to combustion systems engineers.

"In the course of our work since that time, we have developed a series of enhanced designs for stabilizing flames and simplifying burner design for low NOx and Ultra-Low NOx burners which we believe are both unique and highly innovative. We also recently demonstrated important techniques for transferring electrical charge into a flame through electrodes that have no physical contact with the flame. This is an important milestone toward commercialization as it may provide flexibility to design engineers and significantly simplify the process of retrofitting existing combustion systems with ECC technology. We continue to pursue multiple new patent applications and to invent aggressively.

"In addition to our work with flame attachment and flame stability, we have previously demonstrated that it is possible using our technology to increase the radiance or luminosity of a flame. This is especially important in gaseous fuels such as natural gas, which, because they are relatively low in carbon, tend to be low-radiance fuels. By increasing radiance, heat transfer in the radiant section of a boiler can be increased and overall efficiency improved. As many coal-fired electric power plants are converted over to natural gas, the relatively lower radiance of natural gas flames has presented a significant challenge and the industry is faced with the prospect of increased costs to account for the loss of thermal efficiency. We believe that it may be possible to employ our ECC technology to increase heat transfer in natural gas flames and to facilitate the conversion of coal-fired facilities to natural gas.

"We have previously demonstrated increased radiance at a heat release of approximately 100,000 Btu/hr. During the second quarter we began work to demonstrate increased flame radiance at higher thermal output levels and anticipate being able to report more on this during the current quarter.

"In many thermal energy systems, it is important to keep heat away from metal surfaces in order to reduce heat loss or otherwise increase efficiency. This is especially important for gas turbines used in both the aviation and electric power generation markets. Heat loading on the blades and internal surfaces of turbine engines is the principal limiting factor in turbine efficiency. If these surfaces can be more effectively cooled it would have the effect of increasing efficiency in a market where small marginal gains have a profound impact. We have seen early indications that suggest that it may be possible to use ECC technology to reduce thermal loading on surfaces and we have defined a research initiative to collect additional information in this regard.

"We recently constructed a test rig to evaluate the potential of our technology to enhance cooling. Early results appear to be promising. We should be in a position to report on this effort later in the current quarter. Depending upon our results, we may seek third party collaboration in this area and have begun dialogue with prospective commercial partners and funding sources.

"Our business development efforts continue to focus on identifying and selectively engaging with prospective OEM partners, channel partners and launch customers in multiple segments of the combustion market. Our goals are to: 1) inform product definition from the perspective of both customers and the distribution channel (refine pricing models, product roadmap and launch strategy), 2) secure agreements with high visibility launch customers for early commercialization of our systems, and 3) engage with subject matter experts and thought leaders in the combustion field to further validate our approach and increase awareness among prospective customers and partners.

"We are actively exploring collaborations and funding opportunities with a number of leading research institutions in the energy field.

"We continue to believe that the earliest targets for commercialization will be in the commercial and industrial segments for both gas-fired and solid fuel systems."

A conference call discussing the release of the Company's results for the quarter ended June 30, 2012 is scheduled for 4:30 PM Eastern Time on August 6, 2012. To listen to the conference call, you should dial 877-407-8031 (international: +1-201-689-8031) five to ten minutes before the scheduled start time and request to be connected to the ClearSign Combustion Corporation conference call. If you wish to listen to a replay of the conference call, you may dial 877-660-6853 (international: +1-201-612-7415) and enter account number 286 and conference ID 398376. The replay will be available from 24 hours after the conference call, until August 20th, 2012.

About ClearSign Combustion Corporation

ClearSign Combustion Corporation designs and develops technologies that aim to improve key performance characteristics of combustion systems including energy efficiency, emissions control, and fuel flexibility and overall cost effectiveness. Our Electrodynamic Combustion Control™ (ECC™) platform technology improves control of flame shape and heat transfer and optimizes the complex chemical reactions that occur during combustion in order to minimize harmful emissions. For more information about the Company, please visit www.clearsign.com

Cautionary note on forward-looking statements

This press release includes forward-looking information and statements within the meaning of the Private Securities Litigation Reform Act of 1995 and the provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Except for historical information contained in this release, statements in this release may constitute forward-looking statements regarding our assumptions, projections, expectations, targets, intentions or beliefs about future events that are based on management's belief, as well as assumptions made by, and information currently available to, management. While we believe that our expectations are based upon reasonable assumptions, there can be no assurances that our goals and strategy will be realized. Numerous factors, including risks and uncertainties, may affect our actual results and may cause results to differ materially from those expressed in forward-looking statements made by us or on our behalf. Some of these factors include the acceptance of existing and future products, the impact of competitive products and pricing, general business and economic conditions, and other factors detailed in our Quarterly Report on Form 10-Q and other periodic reports filed with the SEC. We specifically disclaim any obligation to update or revise any forward-looking statement whether as a result of new information, future developments or otherwise.

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