

ClearSign Technologies Provides Update on China Business

TULSA, Okla., Feb. 15, 2022 /PRNewswire/ -- ClearSign Technologies Corporation (Nasdaq: CLIR) ("ClearSign" or the "Company"), an emerging leader in industrial combustion and sensing technologies that improve energy, operational efficiency and safety while dramatically reducing emissions, today provided an update on commercialization progress for its products in China.

The Company's 125hp fire tube boiler, which received certification in April 2021, has been sold to a customer and is scheduled for installation in a rental boiler by the customer for commercial deployment. The Company anticipates that this deployment will provide further benefit to ClearSign from the additional exposure the Company may receive from the demonstration of ClearSign's boiler burner technology to Chinese customers.

The Company is on track to create a strategic sales channel and alliance through a Collaboration Framework Agreement ("CFA") with China's top tier boiler company Jiangsu Shuangliang Boiler Co., Ltd. ("Shuangliang"), a subsidiary of China's Shuangliang Group Co., Ltd., which is one of China's top 500 enterprises. The Company signed an updated non-binding CFA with Shuangliang to provide a next generation ultra-low emission, and high efficiency integrated boiler burner package for the Chinese market. The CFA has been expanded to include the Company's 2500hp water tube boiler burner. Shuangliang continues to invest in this alliance and has agreed to fabricate boilers and the ancillary fuel supply and cooling infrastructure. Additionally, Shuangliang has agreed to host the certification process first for the 2500hp water tube boiler burner and subsequently for a 500hp fire tube boiler burner to provide certification for a mid-sized fire tube boiler burner.

Shuangliang Group Co., Ltd. has the largest market share and ranks as China's number one boiler manufacturer in the industrial boiler, district heating boiler, and commercial and institutional boiler markets, with over 700 active sales personnel and sales offices strategically located throughout China.

The Company's 2500hp water tube boiler burner has been redesigned as a single piece, self-contained burner similar to the fire tube product demonstrated in California in late 2021. The first model of this newly designed 2500hp water tube boiler burner was test-fired and was later proven successful at the Zeeco test facility in Tulsa, OK. A duplicate burner has since been fabricated in the Zeeco Shanghai facility and is scheduled for certification testing at the site of Shuangliang early in the third quarter this year. Upon successful completion of testing, the 2500hp water tube boiler burner will be available for sale in the Chinese market.

Updated Collaboration Agreement Signed with Beijing District Heating Group

The Company signed a new, updated and expanded Collaboration Agreement with the Beijing District Heating Group. This is a renewal and expansion from the original Collaboration Agreement that was entered into in May 2017 and updated in June 2019. The Beijing District Heating Group's entry into this new Collaboration Agreement confirms that it will continue its investment and support in ClearSign technology.

Under the terms of the Collaboration Agreement, the Beijing District Heating Group agrees to work with the Company to both install and demonstrate the ClearSign Core™ innovative technology in its boilers following formal government certification. The parties are focusing on specific classes of boilers for testing and demonstration of ClearSign's boiler burner technology. The project is a joint collaboration, with the Company being responsible for the design and fabrication of the combustion technology and overseeing the installation. The Company and the Beijing District Heating Group agreed that upon successful completion of

the pilot demonstrations with results satisfying the agreed upon specifications, the parties will use their best efforts to negotiate initial purchases and plans to expand within the Beijing District Heating Group's operational footprint and to discuss other forms of collaboration.

"The water tube boiler burner is particularly important in China due to the very large number of water tube boilers in service in the government run heating districts that provide heating to the homes and businesses in the northern and cooler regions of China," said Jim Deller, Ph.D., Chief Executive Officer of ClearSign. "Progress in China has been slower than we would like, but with COVID-19 restrictions and the fact that we need to be cautious on how we develop and enter into partnerships to manage our IP exposure, we are pleased to have made continuous strategic progress in China, and to be able to develop and strengthen the high level relationships necessary for success. To give a bit more color to the market and why we are pursuing it, as the largest heating district in China, the Beijing District Heating Group heats over 5.5 billion square feet of space, which in perspective, is about 10x the size of the entirety of all of New York City's office space. And this is but one of many heating districts in China."

About ClearSign Technologies Corporation

ClearSign Technologies Corporation designs and develops products and technologies for the purpose of improving key performance characteristics of industrial and commercial systems, including operational performance, energy efficiency, emission reduction, safety and overall cost-effectiveness. Our patented technologies, embedded in established OEM products as ClearSign Core™ and ClearSign Eye™ and other sensing configurations, enhance the performance of combustion systems and fuel safety systems in a broad range of markets, including the energy (upstream oil production and down-stream refining), commercial/industrial boiler, chemical, petrochemical, transport and power industries. For more information, please visit www.clearsign.com.

Cautionary note on forward-looking statements

All statements in this press release that are not based on historical fact are "forward-looking statements." You can find many (but not all) of these statements by looking for words such as "approximates," "believes," "hopes," "expects," "anticipates," "estimates," "projects," "intends," "plans," "would," "should," "could," "may," "will" or other similar expressions. While management has based any forward-looking statements included in this press release on its current expectations on the Company's strategy, plans, intentions, performance, or future occurrences or results, the information on which such expectations were based may change. These forward-looking statements rely on a number of assumptions concerning future events and are subject to a number of risks, uncertainties and other factors, many of which are outside of our control, that could cause actual results to materially differ from such statements. Such risks, uncertainties and other factors include, but are not limited to, general business and economic conditions, the performance of management and our employees, our ability to obtain financing, competition, successful testing of boiler burners, maintaining successful business relationships with the Chinese partners, whether our technology will be accepted and adopted and other factors identified in our Annual Report on Form 10-K filed with the Securities and Exchange Commission and available at www.sec.gov and other factors that are detailed in our periodic and current reports available for review at www.sec.gov. Furthermore, we operate in a competitive environment where new and unanticipated risks may arise. Accordingly, investors should not place any reliance on forward-looking statements as a prediction of actual results. We disclaim any intention to, and, except as may be required by law, undertake no obligation to, update or revise forward-looking statements to reflect events or circumstances that subsequently occur or of which we hereafter become aware.

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