



LIGHTWAVE LOGIC™

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Lightwave Logic, Inc. CEO Sets Company Vision and Goals In Open Letter to Shareholders

*Advancements in technology expected to yield initial
revenue in 2010*

Newark, DE, February 1, 2010 Lightwave Logic, Inc. (OTC Bulletin Board: LWLG) a technology company focused on the development of the ‘Next Generation Electro-Optic Polymer Material Platform’ for applications in high speed fiber-optic telecommunications and optical computing, announced today that Jim Marcelli, its chief executive officer sent the following open letter to its shareholders:

Open Letter to Lightwave Logic, Inc. Shareholders

Fellow Shareholders,

At the speed of light, an all plastic photonic chip may define the 21st century just as silicon defined the 20th century. Our vision at Lightwave Logic Inc. is to make that a reality. An all optical chip substituting photons for electrons is our goal.

It wasn't long ago that this goal would have been considered impossible. Many have attempted but few have come close to fully developing the potential of this compelling technology. It is an ambitious undertaking, but our technologists have put us on a trajectory toward success in this revolutionary electro-optic polymer field.

Lightwave Logic's "Next Generation Optic Material Platform" will form the foundation for the development of Application Specific Electro-Optic Polymers (ASEOP). In the future, we believe this material will give us the ability for "terabit communications," an all plastic photonic chip capable of transmitting a terabit of information per second.



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In working and moving toward our goal, Lightwave Logic will attain significant technological milestones in the weeks, months and years ahead. We expect that these achievements will create initial and growing opportunities in the enormous Telecommunications/Data communications, Computer and Military Aerospace markets. We feel confident that the top companies in these market segments will take notice of our disruptive technology-- In fact some already have!

As Lightwave Logic evolves from a developmental/technology stage to a material and product production stage, we expect that the company will report initial revenues in the 3rd and 4th quarter of 2010, and see meaningful revenues in 2011.

We could not have set such ambitious goals without the solid progress during 2009 reflected below:

- Through testing and early production our material proved to be photo chemically and thermally stable, 41% higher in EO Coefficients (r33) and able to successfully withstand the high temperatures of the device manufacturing process. In addition, the amount of the material used in prototype modulators has been reduced, which is a critical milestone for a more effective and efficient solution in the future.
- Our first phase modulator was demonstrated and evaluated during the fourth quarter and its verification process is almost complete. In addition, it was unveiled at the 2009 Gilder/Forbes Telecommunications Conference. Our first amplitude modulator is nearing completion. Our company will then have two demonstrable modulators that are potential alternatives in two different markets.
- A solid intellectual property portfolio is the cornerstone of any technology company, and Lightwave Logic has worked diligently to ensure its continued growth. We filed our sixth patent application during the year and continue to work toward the issuance of our pending patents.
- The announced cooperative research agreement with The University of Alabama, will accelerate our time to market with our Third-Order materials, and allow our in-house scientists to work on projects closer to commercialization.

We are encouraged by the robustness of our technology and the commitment of our people and technology partners.

Just a few weeks ago Dr. Phillips W. Smith, an early and vocal proponent of Lightwave Logic with vast experience with companies moving from the developmental to commercial stage, joined the Board as its Chairman. Phil will be Lightwave's primary representative and



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spokesperson to the financial community, and has and will continue to be instrumental in opening many doors to potential partners and customers as well.

The progress of 2009 should be a prelude to more rapid progress in 2010. In the months ahead, we expect to accelerate the development of our amplitude and phase modulators, have our first patent issued, announce our first material and device partnerships, and achieve initial revenue. As always, we will strengthen and refine the core strength of our company, its technology.

I wish to thank all our shareholders for your continued support on our journey. We look forward to meeting you and updating you further at our annual shareholder meeting which will be scheduled in the spring.

Jim Marcelli
Chief Executive Officer
February 1, 2010

“Powered by Lightwave Logic”™

Lightwave Logic, Inc. is a development stage company that is producing prototype electro-optic demonstration devices and is moving toward commercialization of its high-activity, high-stability organic polymers for applications in electro-optical device markets. Electro-optical devices convert data from electric signals into optical signals for use in high-speed fiber-optic telecommunications systems and optical computers. Please visit the Company's website, www.lightwavelogic.com, for more information.

Safe Harbor Statement

The information posted in this release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words "may," "will," "should," "plans," "explores," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. These risks and uncertainties include, but are not limited to, general economic and business conditions, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, shortages in components, production delays due to performance quality issues with outsourced components, and various other factors beyond the Company's control.