Lightwave Logic, Inc. Form DEF 14A June 29, 2011

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.) Filed by the Registrant [X] Filed by a Party other than the Registrant [] Check the appropriate box:

[] Preliminary Proxy Statement

[] Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

[X] Definitive Proxy Statement

[] Definitive Additional Materials

[] Soliciting Material under Rule 14a-12

LIGHTWAVE LOGIC, INC.

Name of the Registrant as Specified In Its Charter

.....

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

[X] No fee required.

[] Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

Title of each class of securities to which transaction applies:

.....

Aggregate number of securities to which transaction applies:

.....

Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):

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Proposed maximum aggregate value of transaction:

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Total fee paid:

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[] Fee paid previously with preliminary materials.

[] Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing. Amount Previously Paid:

.....

Form, Schedule or Registration Statement No.:

.....

Filing Party:

.....

Date Filed:

.....

Lightwave Logic, Inc.

121 Continental Drive, Suite 110

Newark, Delaware 19713

June 30, 2011

Dear Fellow Stockholder:

The 2011 Annual Meeting of Stockholders (the **Annual Meeting**) of Lightwave Logic, Inc. (the **Company**) will be held at 10:00 a.m. on Thursday, August 11, 2011 at the Hilton Wilmington/Christiana, 100 Continental Drive, Newark, DE 19713. I hope you will be able to attend.

We have elected to take advantage of the Securities and Exchange Commission rule allowing companies to furnish proxy materials to their stockholders over the Internet. Consequently, the majority of stockholders will not receive paper copies of our proxy materials. On June 30, 2011, we mailed to our stockholders a Notice of Internet Availability of Proxy Materials containing instructions on how to access our 2011 Proxy Statement and Annual Report and vote online, by phone, in person or by mail. This Notice also provides information on how stockholders may obtain paper copies of our proxy materials if they so choose. This makes the proxy distribution process more efficient, while conserving resources.

The attached Notice of Annual Meeting and Proxy Statement describe the matters that we expect to be acted upon at the Annual Meeting. Management will be available to answer any questions you may have immediately after the Annual Meeting.

Please sign, date and return the enclosed Proxy without delay in the enclosed envelope, via telephone or via e-mail. The Company s Annual Report on Form 10-K (including audited financial statements) for the fiscal year ended December 31, 2010 accompanies the Proxy Statement. The proxy materials and Annual Report included in this package are also available on the internet under the **Investor Info** page of the Company s website at www.lightwavelogic.com.

All shares represented by Proxies will be voted at the Annual Meeting in accordance with the specifications marked thereon, or if no specifications are made, (i) as to Proposal 1, the Proxy confers authority to vote FOR all of the seven (7) persons listed as candidates for a position on the Board of Directors, (ii) as to Proposal 2, the Proxy confers authority to vote FOR the ratification of Morison Cogen LLP as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2011, and (iii) as to any other business which comes before

the Annual Meeting, the Proxy confers authority to vote in the Proxy holder s discretion.

The Company's Board of Directors believes that a favorable vote for each candidate for a position on the Board of Directors and for all other matters described in the attached Notice of Annual Meeting of Stockholders and Proxy Statement is in the best interest of the Company and its stockholders and recommends a vote FOR all candidates and all other matters. Accordingly, we urge you to review the accompanying material carefully and to return the enclosed Proxy promptly.

Your vote is important and we encourage you to vote promptly. For record holders, whether or not you are able to attend the annual meeting in person, please follow the instructions contained in the Notice on how to vote via the Internet, by phone, or request a paper proxy card to complete, sign and return by mail so that your shares may be voted. If your shares are held in the name of a broker, bank or other holder of record, follow the voting instructions you receive from the holder of record to vote your shares.

Thank you for your investment and continued interest in Lightwave Logic, Inc.

Sincerely,

/s/ James S. Marcelli

James S. Marcelli

Chief Executive Officer

LIGHTWAVE LOGIC, INC.

121 Continental Drive, Suite 110

Newark, Delaware 19713

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD THURSDAY, AUGUST 11, 2011

To our Stockholders:

Notice is hereby given that the 2011 Annual Meeting (the **Annual Meeting**) of Stockholders of Lightwave Logic, Inc. (the **Company**), a Nevada corporation, will be held at the Hilton Wilmington/Christiana, 100 Continental Drive, Newark, DE 19713, on Thursday, August 11, 2011 at 10:00 a.m., for the following purposes:

1.

To elect seven (7) Directors to the Board of Directors to serve until the 2012 Annual Meeting of Stockholders or until their successors have been duly elected or appointed and qualified;

2.

To ratify the appointment of Morison Cogen LLP to serve as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2011; and

3.

To consider and take action upon such other business as may properly come before the Annual Meeting or any adjournments thereof.

The Board of Directors has fixed the close of business on June 23, as the Record Date for determining the stockholders entitled to notice of, and to vote at, the Annual Meeting or any adjournments thereof.

For a period of 10 days prior to the Annual Meeting, a stockholders list will be kept at the Company s office and shall be available for inspection by stockholders during usual business hours. A stockholders list will also be available for inspection at the Annual Meeting.

Your attention is directed to the accompanying Proxy Statement for further information regarding each proposal to be made.

STOCKHOLDERS UNABLE TO ATTEND THE MEETING IN PERSON ARE URGED TO COMPLETE, DATE AND SIGN THE ACCOMPANYING PROXY AND MAIL IT IN THE ENCLOSED STAMPED, SELF-ADDRESSED ENVELOPE AS PROMPTLY AS POSSIBLE. IF YOU SIGN AND RETURN YOUR PROXY WITHOUT SPECIFYING YOUR CHOICES IT WILL BE UNDERSTOOD THAT YOU WISH TO HAVE YOUR SHARES VOTED IN ACCORDANCE WITH THE DIRECTORS RECOMMENDATIONS. IF YOU ATTEND THE ANNUAL MEETING, YOU MAY, IF YOU DESIRE, REVOKE YOUR PROXY AND VOTE IN PERSON.

By Order of the Board of Directors

/s/ James S. Marcelli

James S. Marcelli

Chief Executive Officer

June 30, 2011

LIGHTWAVE LOGIC, INC.

121 Continental Drive, Suite 110

Newark, Delaware 19713

PROXY STATEMENT

2011 ANNUAL MEETING OF STOCKHOLDERS

This Proxy Statement is furnished in connection with the solicitation by and on behalf of the Board of Directors (the **Board of Directors** or **Board**) of Lightwave Logic, Inc. of proxies to be voted at the 2011 Annual Meeting of Stockholders to be held at 10:00 a.m. on Thursday, August 11, 2011 at the Hilton Wilmington/Christiana, 100 Continental Drive, Newark, Delaware 19713 and at any adjournments thereof (the **Annual Meeting**). In this Proxy Statement, Lightwave Logic, Inc. is referred to as **we**, **us**, **our**, **Company** or **Lightwave Logic** unless the c indicates otherwise. The Annual Meeting has been called to consider and take action on the following proposals: (i) to elect seven (7) Directors to the Board of Directors to serve until the 2012 Annual Meeting of Stockholders or until their successors have been duly elected or appointed and qualified; (ii) to ratify the appointment of Morison Cogen LLP to serve as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2011; and (iii) to consider and take action upon such other business as may properly come before the Annual Meeting or any adjournments thereof.

The Board of Directors knows of no other matters to be presented for action at the Annual Meeting. However, if any other matters properly come before the Annual Meeting, the persons named in the proxy will vote on such other matters and/or for other nominees in accordance with their best judgment. The Company s Board of Directors recommends that the stockholders vote in favor of each of the Director Nominees and each of the proposals. Only holders of record of Common Stock of the Company at the close of business on June 23, 2011 (the Record Date) will be entitled to vote at the Annual Meeting.

The principal executive offices of our Company are located at 121 Continental Drive, Suite 110, Newark, Delaware 19713 and our telephone number is 302-356-2717. The approximate date on which this Proxy Statement, the proxy card and other accompanying materials are first being sent or given to stockholders is June 30, 2011. A copy of the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2010 (**Annual Report**) is enclosed with these materials, but should not be considered proxy solicitation material. As is the practice of many other companies, the Company is now providing proxy materials by a notice and access process through the Internet. Those

stockholders who wish to receive paper proxy materials may request them.

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to Be Held on August 11, 2011.

The Proxy Statement, Annual Report and a form of proxy card are under the Investor Info page of the Company s website at www.lightwavelogic.com. Pursuant to rules adopted by the Securities and Exchange Commission, our Company is making this Proxy Statement and its Annual Report available to its stockholders electronically via the Internet. On June 30, 2011 we mailed to our stockholders a Notice of Internet Availability of Proxy Materials (the

Notice) containing instructions on how to access our 2011 Proxy Statement and Annual Report and vote online, by phone, in person or by mail. If you received the Notice by mail, you will not receive a printed copy of the proxy materials, unless specifically requested. If you received the Notice by mail and would like to receive a printed copy of our proxy materials you should follow the instructions for requesting such materials included in the Notice.

INFORMATION CONCERNING SOLICITATION AND VOTING

Who is entitled to vote?

Stockholders as of the close of business on June 23, 2011 (the **Record Date**) are entitled to vote. Each stockholder is entitled to one vote for each share of common stock held on the Record Date. Stockholders are not entitled to cumulative voting.

Who can attend the Annual Meeting?

All stockholders as of the Record Date, or their duly appointed proxies, may attend.

Why did I receive a notice regarding the availability of proxy materials on the Internet?

Pursuant to rules adopted by the Securities and Exchange Commission (the **SEC**), our Company has elected to provide access to its proxy materials over the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials (the **Notice**) to our stockholders of record. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about June 30, 2011 to all stockholders of record entitled to vote at the Annual Meeting.

Why did I receive this Proxy Statement?

Our Board of Directors is soliciting your proxy to vote at the Annual Meeting because you were a stockholder of record at the close of business on the Record Date, and are entitled to vote at the meeting. The Company has made this Proxy Statement and the Annual Report, along with either a proxy card or a voting instruction card, available to

you on the Internet or, upon request, has delivered printed versions to you by mail beginning on or about June 30, 2011. This Proxy Statement summarizes the information you need to know to vote at the Annual Meeting. You do not need to attend the Annual Meeting to vote your shares.

Who is entitled to vote?

Stockholders as of the close of business on the Record Date are entitled to vote. Each stockholder is entitled to one vote for each share of common stock held on the Record Date. Stockholders are not entitled to cumulative voting.

Who can attend the Annual Meeting?

All stockholders as of the Record Date, or their duly appointed proxies, may attend.

What do I need to be admitted to the Annual Meeting?

In order to be admitted to the Annual Meeting, a stockholder must present proof of ownership of Lightwave Logic stock on the Record Date. Any holder of a proxy from a stockholder must present the proxy card, properly executed. If your shares are held in the name of a bank, broker or other holder of record, you must present proof of your ownership, such as a bank or brokerage account statement, to be admitted to the meeting. All shareholders must also present a form of personal identification in order to be admitted to the meeting.

What am I being asked to vote on at the meeting?

We are asking our shareholders to elect directors and to ratify the appointment of our independent registered public accounting firm.

How many votes are needed for approval of each item?

<u>Proposal Number 1</u>. Directors will be elected by a plurality of the votes cast in person or by proxy, meaning the seven nominees receiving the most votes will be elected as directors. Stockholders are not entitled to cumulative voting with respect to the election of directors.

<u>Proposal Number 2</u>. The appointment of our independent registered public accounting firm will be ratified if a majority of the votes present in person or by proxy and entitled to vote on the matter vote in favor of the proposal.

What constitutes a quorum?

As of the Record Date, 44,126,872 shares of our common stock were issued and outstanding. The presence, either in person or by proxy, of the holders of a majority of these outstanding shares is necessary to constitute a quorum for the Annual Meeting. Abstentions and broker non-votes are counted as present and entitled to vote for purposes of determining a quorum.

How do I vote?

<u>Record Holders</u>: Stockholders may vote in person at the Annual Meeting, or by proxy via the proxy card, or via telephone or internet as instructed on the proxy card. If you will be returning your vote by use of the proxy card, indicate your voting preferences on the proxy card, sign and date it, and return it in the prepaid envelope provided with this Proxy Statement. If you return a signed proxy card but do not indicate your voting preferences, the proxies named in your proxy card will vote FOR all proposals on your behalf. You have the right to revoke your proxy any time before the meeting by (1) notifying the Company s Secretary, or (2) returning a later-dated proxy. You may also revoke your proxy by voting in person at the meeting.

<u>If you hold your shares in street name</u>: Your broker, bank or other nominee will ask for your instructions, generally by means of a voting instruction form. If you do not provide voting instructions to your broker or other nominee, your shares will not be voted on any proposal on which your broker or other nominee does not have discretionary authority to vote.

If your shares are held in the name of a bank or brokerage firm, you must obtain a proxy, executed in your favor, from the bank or broker, to be able to vote at the meeting.

What is the difference between being a record holder and holding shares in street name?

Most stockholders of the Company hold their shares through a Nominee rather than directly in their own name. As summarized below, there are some distinctions between shares held of record and those owned beneficially.

<u>Record Holders</u>: If your shares are registered directly in your name with our Company s transfer agent, Broadridge Financial Solutions, Inc., you are considered the stockholder of record with respect to those shares, and these proxy materials are being sent directly to you by the Company. As the stockholder of record, you have the right to grant your voting proxy directly to us or to vote in person at the Annual Meeting. We have enclosed a proxy card for you to use.

<u>If you hold your shares in</u> <u>street name</u> : If your shares are held in a stock brokerage account or by a Nominee, you are considered the beneficial owner of the shares which are held in street name and these proxy materials are being forwarded to you by your Nominee, who is considered the stockholder of record with respect to these shares. As the beneficial owner, you have the right to direct your Nominee on how to vote and are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote these shares in person at the Annual Meeting unless you request, complete and deliver a proxy from your Nominee. Your Nominee has enclosed a voting instruction card for you to use in directing the Nominee how to vote your shares.

What happens if I return my signed proxy card but forget to indicate how I want my shares of common stock voted?

If you sign, date and return your proxy and do not mark how you want to vote, your proxy will be counted as a vote FOR all of the nominees for directors and FOR the ratification of our independent registered public accounting firm.

What happens if I do not instruct my broker how to vote or if I mark abstain or withhold authority on the proxy?

If you mark your proxy abstain or withhold authority, your vote will have the same effect as a vote against the proposal or the election of the applicable director. If you do not instruct your broker how to vote, your broker may vote for you on routine proposals but not on non-routine proposals. The ratification of our auditor is considered routine, but the election of directors is non-routine. Therefore, if you do not vote on the election of directors or provide voting instructions, your broker will not be allowed to vote your shares. Broker non-votes with respect to a matter will not be considered as present and entitled to vote with respect to that matter and thus will have no effect on the vote for that matter.

Can I change my voting instructions before the meeting?

Proxies given by stockholders of record for use at the Annual Meeting may be revoked at any time prior to the exercise of the powers conferred. In addition to revocation in any other manner permitted by law, stockholders of record giving a proxy may revoke the proxy by an instrument in writing, executed by the stockholder or his or her attorney authorized in writing or, if the stockholder is a corporation, by an officer or attorney thereof duly authorized, and deposited either at the corporate headquarters of the Company at any time up to and including the last business day preceding the day of the Annual Meeting, or any adjournments thereof, at which the proxy is to be used, or with the chairman of such Annual Meeting on the day of the Annual Meeting or adjournments thereof, and upon either of such deposits the proxy is revoked. If your shares are held in the name of a bank or brokerage firm, you must obtain a proxy, executed in your favor, from the bank or broker, to be able to vote at the meeting.

Method of Counting Votes

Unless a contrary choice is indicated, all duly executed proxies will be voted in accordance with the instructions set forth on the proxy card. A broker non-vote occurs when a broker holding shares registered in street name is permitted

to vote, in the broker s discretion, on routine matters without receiving instructions from the client, but is not permitted to vote without instructions on non-routine matters, and the broker returns a proxy card with no vote (the non-vote) on the non-routine matter. Under the rules and regulations of the primary trading markets applicable to most brokers, the election of directors is a non-routine matter which requires the broker s client to provide the broker with voting instructions and the ratification of the appointment of auditors is a routine matter on which a broker has the discretion to vote if instructions are not received from the client in a timely manner. Abstentions will be counted as present for purposes of determining a quorum but will not be counted for or against the election of directors or the ratification of independent auditors. As to Item 1, the Proxy confers authority to vote for all of the seven persons listed as candidates for a position on the Board of Directors even though the block in Item 1 is not marked unless the names of one or more candidates are lined out. The Proxy will be voted FOR Item 2 unless AGAINST or ABSTAIN is indicated. If any other business is presented at the meeting, the Proxy shall be voted in accordance with the recommendations of the Board of Directors.

Who will count the vote?

Broadridge Financial Solutions, Inc. will tabulate the votes and act as inspector of election at the Annual Meeting.

Where can I find the voting results of the Annual Meeting?

We intend to publish the final results in a current report on Form 8-K within four business days after the end of the Annual Meeting.

What does it mean if I get more than one proxy card?

It means that you hold shares registered in more than one account. You must return all proxies to ensure that all of your shares are voted.

How many copies of the Notice of Internet Availability, Proxy Statement or Annual Report to Shareholders will I receive if I share my mailing address with another security holder?

Unless we have been instructed otherwise, we are delivering only one Notice of Internet Availability, Proxy Statement or Annual Report to Shareholders to multiple security holders sharing the same address. This is commonly referred to as householding. We will however, deliver promptly a separate copy of the Notice of Internet Availability, Proxy Statement or Annual Report to Shareholders to a security holder at a shared address to which a single copy of such documents was delivered, on written or oral request. Requests for copies of the Notice of Internet Availability, Proxy Statement or Annual Report to Shareholders or requests to cease householding in the future should be directed to Andrew Ashton, Secretary, Lightwave Logic, Inc., 121 Continental Drive, Suite 110, Newark, Delaware 19713. Telephone 302-356-2717. If you share an address with another stockholder and wish to receive a single copy of these documents, instead of multiple copies, you may direct this request to us at the address or telephone number listed above. Stockholders who hold shares in street name may contact their brokerage firm, bank, broker-dealer or other similar organization to request information about householding.

How can I obtain additional proxy materials or other Company materials?

Copies of the Company s SEC filings are available under the Investor Info page of the Company s website at www.lightwavelogic.com. Any stockholder desiring additional proxy materials, a copy of any other document incorporated by reference in this Proxy Statement, or a copy of the Company s bylaws should contact the Company s Secretary. Requests should be directed to Andrew Ashton, Secretary, Lightwave Logic, Inc., 121 Continental Drive, Suite 110, Newark, Delaware 19713. Telephone 302-356-2717.

Who pays for the cost of this proxy solicitation?

The Company pays for the cost of soliciting proxies on behalf of the Board of Directors. The Company also will reimburse brokerage firms and other custodians, nominees and fiduciaries for their reasonable expenses in forwarding proxy material to beneficial owners. Proxies may be solicited by mail, telephone, other electronic means or in person. Proxies may be solicited by directors, officers and regular, full-time employees of the Company, none of whom will receive any additional compensation for their services.

Who are the largest principal shareholders?

See *Security Ownership of Certain Beneficial Owners* elsewhere in this Proxy Statement for a table setting forth each owner of greater than 5% of the Company s common stock as of the Record Date.

What percentages of stock do the directors and officers own?

Together, they own approximately 22.63% of our Company common stock as of the Record Date. For information regarding the ownership of our common stock by management, see the section entitled *Security Ownership of Management* elsewhere in this Proxy Statement.

Do I have dissenters rights of appraisal?

Under Nevada Revised Statutes, our stockholders are not entitled to appraisal rights with respect to any of the items proposed to be voted upon at the Annual Meeting.

Where can I find general information about the Company?

General information about us can be found on our website at www.lightwavelogic.com. The information on our website is for informational purposes only and should not be relied upon for investment purposes. The information on our website is not incorporated by reference into this Proxy Statement and should not be considered part of this or any other report that we file with the Securities and Exchange Commission (**SEC**). We make available free of charge, either by direct access on our website or a link to the SEC s website, our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the **Exchange Act**), as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. Our reports filed with, or furnished to, the SEC are also available directly at the SEC s website at www.sec.gov.

ALL PROXIES RECEIVED WILL BE VOTED IN ACCORDANCE WITH THE CHOICES SPECIFIED ON SUCH PROXIES. PROXIES WILL BE VOTED IN FAVOR OF EACH DIRECTOR NOMINEEE AND FOR A PROPOSAL IF NO CONTRARY SPECIFICATION IS MADE. ALL VALID PROXIES OBTAINED WILL BE VOTED AT THE DISCRETION OF THE PERSONS NAMED IN THE PROXY WITH RESPECT TO ANY OTHER BUSINESS THAT MAY COME BEFORE THE ANNUAL MEETING.

INFORMATION REGARDING DIRECTORS, EXECUTIVE

OFFICERS AND CORPORATE GOVERNANCE

BOARD OF DIRECTORS

Our bylaws provide that the number of directors under our bylaws is determined by resolution of the Board of Directors. Our Board of Directors currently consists of seven directors. Each director is elected to serve until the next annual meeting of stockholders and until the election and qualification of his or her successor or his or her earlier resignation or removal.

The names of our directors, including the seven nominees to be elected at the Annual Meeting, and certain information about each of them are set forth below.

Identity Of Directors

| <u>Name</u> | Age | Position | <u>Term/Period</u> <u>Served</u> |
|-------------------------|-----|----------------------------------------------------------|-------------------------------------|
| James S. Marcelli | 63 | Director, Chief Executive Officer, President | 1 yr./Since 2008 |
| Andrew J. Ashton | 37 | Director, Senior Vice President, Treasurer, Secretary | 1 yr./Since 2004 |
| Philips W. Smith | 73 | Non-Executive Chair of The Board of Directors | 1 yr./Since 2010 |
| Ross Fasick | 78 | Director | 1 yr./Since 2008 |
| William C. Pickett, III | 67 | Director | 1 yr./Since 2008 |
| Thomas E. Zelibor | 57 | Director | 1 yr./Since 2008 |
| Joseph A. Miller | 69 | Director | 1yr./Since 2011 |

Business Experience Of Directors

Mr. James S. Marcelli. Mr. Marcelli has served as an officer and director of our Company since August 2008. Mr. Marcelli is in charge of the day-to-day operations of our Company and its movement to a fully functioning commercial corporation. Since 2000, Mr. Marcelli has served as the president and chief executive officer of Marcelli Associates, a consulting company that offers senior management consulting, mentoring, and business development services to start-up and growth companies. Business segments Mr. Marcelli has worked with included an Internet networking gaming center, high speed custom gaming computers, high tech manufacturing businesses and business

service companies.

Mr. Andrew J. Ashton. Mr. Ashton has served as an officer and director of our Company since July 2004. Since that time his assistance in the creation of the synthetic chemistry of our novel molecular architecture has been fundamental to our Company s success. His current duties include the development of chemical synthesis, providing extensive analytical support and assisting with our Company s management goals. Mr. Ashton is a skilled computer scientist and organic chemist who began his career in 1998 at the Army Research Laboratory on the Aberdeen Proving Grounds where he helped to design and implement computer interfaces for fiberglass composite analysis. At that time he joined PSI-TEC Corporation as a financial manager and was responsible for day to day administrative duties. He was instrumental in securing government funding, PSI-TEC s sole financial source, until 2003.

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Dr. Philips W. Smith. Dr. Smith has served as Non-Executive Chair of the Board of Directors of our Company since January 2010. Dr. Smith is the father of Thomas P. Smith, who in January 2010, resigned as board member. In 2001, Dr. Smith brought TASER International, Inc. public through an IPO and most recently served as Chairman of TASER International, Inc. (NasdaqGS: TASR) until his retirement from that position in December 2004. Dr. Smith subsequently resigned his TASER board seat in October 2006. Since then, Dr. Smith has been actively involved as an investor in start-up companies. Dr. Smith s educational experience includes a B.S. from West Point, an M.B.A. from Michigan State University and a PhD from St. Louis University.

Dr. Ross Fasick. Dr. Ross Fasick has served as a director of our Company since July 2008. Dr. Fasick has a broad spectrum of global business and chemistry experience that spans over thirty years. Dr. Fasick spent the early years of his career with DuPont as a research chemist primarily working with polymers and dyes. During his thirty year tenure at Dupont, Dr. Fasick held diverse positions ranging from manufacturing and business development to making divestitures and acquisitions. He served as both President of DuPont s Brazil division and Director of worldwide paint operations. He completed his DuPont career as Senior VP of Polymers and Automotive, a division that generates multi-billion dollar annual revenues. Since his retirement, Dr. Fasick has remained an active board and committee member for private college and pre-college level institutions. Dr Fasick earned his Ph.D in organic chemistry at the University of Delaware.

Mr. William C. Pickett, III. Mr. Picket has served as a director of our Company since January 2008. Mr. Pickett enjoyed a 32 year career with E.I. DuPont de Nemours & Co., where he worked in numerous financial leadership positions, including serving from February 2002 to April 2004 as Chief Financial Officer of Invista, DuPont s \$7 billion man-made fibers company, which was ultimately sold to Koch Industries, Inc. Since February 2005 Mr. Pickett has been serving as a member of the Board of Directors, Executive Committee, Treasurer and Chair of the Finance Committee of the Ronald McDonald House of Delaware; and since December 2004, Mr. Pickett has been serving as Chair of Audit Committee and Chief Compliance Officer of the Operation Warm charity. Mr. Pickett received his MBA from Harvard Business School and a BA from Trinity College.

Thomas E. Zelibor, Rear Admiral, USN (Ret). RADM Zelibor has served as a director of our Company since July 2008. Also, RADM Zelibor presently serves on the Company s Operation Committee. RADM Zelibor has over twenty years of strategic planning and senior leadership experience. Currently, RADM Zelibor serves as the Chief Executive Officer and President of Zelibor & Associates, LLC, a management consulting firm. From July 2008 to April 2011, RADM Zelibor served as the Chief Executive Officer and President of Flatirons Solutions Corp., a professional services firm that provides consulting, systems integration, systems & software engineering, and program management expertise to corporate and government clients. Previously, from July 2006 RADM Zelibor served as the Dean of the College of Operational and Strategic Leadership at the United States Naval War College where he was responsible for the adoption of a corporate approach to leadership development. Prior to that time,, RADM Zelibor served in a number of positions, including as Director of Global Operations, United States Strategic Command; Director, Space, Information Warfare, Command and Control on the Navy staff; Department of the Navy, Deputy Chief Information Officer (CIO), Navy; Commander, Carrier Group Three and Commander, Naval Space Command.

Dr. Joseph A. Miller. Dr. Miller has served as a director of our Company since May 10, 2011. Dr. Miller currently serves as Executive Vice President and Chief Technology Officer of Corning Incorporated, having joined Corning Incorporated in 2001 as Senior Vice President and Chief Technology Officer. Dr. Miller was elected to his current position in 2002. Prior to joining Corning Incorporated, Dr. Miller was with E.I. DuPont de Nemours, Inc., where he served as Chief Technology Officer and Senior Vice President for Research and Development since 1994. Dr. Miller began his career with DuPont in 1966. Dr. Miller is a director of Greatbatch, Inc. and Dow Corning Corporation and holds a doctorate degree in Chemistry from Penn State University.

Each Director of the Company holds such position until the next annual meeting of shareholders and until his successor is duly elected and qualified. The officers hold office until the first meeting of the Board of Directors following the annual meeting of shareholders and until their successors are chosen and qualified, subject to early removal by the Board of Directors.

Transactions with Related Persons

On January 8, 2010, Thomas P. Smith resigned as a member of our Board of Directors, and on January 8, 2010, our Board of Directors invited Dr. Philips W. Smith to be appointed as a member of our Company s Board of Directors and as our full-time Non-executive Chair of the Board of Directors, and on January 13, 2010, Dr. Smith accepted the invitation to be appointed to those positions with our Company. Dr. Philips W. Smith is the father of then board member Thomas P. Smith. In exchange for serving as a member of our Board of Directors and as Non-Executive Chair of the Board of Directors, Dr. Smith received as compensation a warrant to purchase up to 650,000 shares of our common stock at an exercise price of \$1.51 per share for a period of up to five years.

Policies and Procedures for Related-Party Transactions

The Company does not have any formal written policies or procedures for related party transactions, however in practice, the Board reviews and approves all related party transactions and other matters pertaining to the integrity of management, including potential conflicts of interest, trading in our securities, or adherence to standards of business conduct.

CORPORATE GOVERNANCE

Code of Ethics

We have not yet adopted a code of ethics for our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions or any other position due to our development stage, the small number of executive officers involved with our Company, and the fact that we operate with few employees. Our Board of Directors will continue to evaluate, from time to time, whether a code of ethics should be developed and adopted.

Audit Committee

We do not have a separately designated standing audit committee in place. Our full Board of Directors currently serves in that capacity. This is due to our development stage, lack of business operations, the small number of executive officers involved with our Company, and the fact that we operate with few employees. Our Board of Directors will continue to evaluate, from time to time, whether a separately designated standing audit committee

should be put in place. We do not have an audit committee charter.

Our Board of Directors is comprised of James S. Marcelli, Andrew J. Ashton, Ross Fasick, William C. Pickett, III, Philips W. Smith, Thomas E. Zelibor and Joseph Miller. Mr. Pickett serves as our audit committee financial expert as that term is defined by the rules promulgated by the Securities and Exchange Commission.

Our audit committee has reviewed and discussed the audited financial statements with management and has discussed with its independent auditors the matters required to be discussed by the statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU section 380) as adopted by the Public Company Accounting Oversight Board in Rule 3200T. The audit committee has received the written disclosures and the letter from its independent accountant required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant s communications with the audit committee concerning independence, and has discussed with its independent accountant its independent accountant s independence. Based on the review and discussions described above, the audit committee recommended that the audited financial statements be included in the our Annual Report on Form 10-K for the last fiscal year for filing with the Securities and Exchange Commission.

Compensation Committee

Our Board of Directors does not have a standing compensation committee or committee performing similar functions. This is due to our development stage, lack of business operations, the small number of executive officers involved with our Company, and the fact that we operate with few employees. Our full Board of Directors currently participates in the consideration of executive officer and director compensation. We do not have a Compensation

Committee charter. Our Board of Directors is responsible for reviewing, recommending and approving our compensation policies and benefits, including the compensation of all of our executive officers and directors. Our Board of Directors also has the principal responsibility for the administration of our employee stock plan. Our Board of Directors will continue to evaluate, from time to time, whether it should appoint a standing compensation committee.

Executive officers who are also directors participate in determining or recommending the amount or form of executive and director compensation, but the ultimate determination of executive compensation is determined by the independent directors. Neither the board nor management utilizes compensation consultants in determining or recommending the amount or form of executive and director compensation.

Nominating Committee

Our Board of Directors does not have a nominating committee. This is due to our development stage and lack of business operations. Instead of having such a committee, our Board of Directors historically has searched for and evaluated qualified individuals to become nominees for membership on our Board of Directors. The directors recommend candidates for nomination for election or reelection for each annual meeting of stockholders and, as necessary, to fill vacancies and newly created directorships.

All of our director nominees have expressed their willingness to continue to serve as our directors. When new candidates for our Board of Directors are sought, all of our directors evaluate each candidate for nomination as director within the context of the needs and the composition of the board as a whole. The Board of Directors conducts any appropriate and necessary inquiries into the backgrounds and qualifications of candidates. When evaluating director nominees, our Board of Directors generally seeks to identify individuals with diverse, yet complementary backgrounds. Our directors consider both the personal characteristics and experience of director nominees, including each nominee s independence, diversity, age, skills, expertise, time availability and industry background in the context of the needs of the Board of Directors and the Company. The Board of Directors believes that director nominees should exhibit proven leadership capabilities and experience at a high level of responsibility within their chosen fields, and have the experience and ability to analyze business and/or scientific issues facing our Company. In addition to business expertise, the Board of Directors requires that director nominees have the highest personal and professional ethics, integrity and values and, above all, are committed to representing the long-term interests of our stockholders and other stakeholders. To date, all new candidates have been identified by members of our Board of Directors, and we have not paid any fee to a third party to assist in the process of identifying or evaluating director candidates.

Our directors will consider candidates for nomination as director who are recommended by a stockholder and will not evaluate any candidate for nomination for director differently because the candidate was recommended by a

stockholder. To date, we have not received or rejected any suggestions for a director candidate recommended by any stockholder or group of stockholders owning more than 5% of our common stock.

When submitting candidates for nomination to be elected at our annual meeting of stockholders, stockholders should follow the following notice procedures and comply with applicable provisions of our bylaws. To consider a candidate recommended by a stockholder for nomination at the 2012 Annual Meeting of Stockholders, the recommendation must be delivered or mailed to and received by our Secretary within the time periods discussed elsewhere in this Proxy Statement under the heading Stockholder Proposals for 2012 Annual Meeting. The recommendation must include the information specified in our bylaws for stockholder nominees to be considered at an annual meeting, along with the following:

The stockholder's name and address and the beneficial owner, if any, on whose behalf the nomination is proposed;

The stockholder's reason for making the nomination at the annual meeting, and the signed consent of the nominee to serve if elected;

The number of shares owned by, and any material interest of, the record owner and the beneficial owner, if any, on whose behalf the record owner is proposing the nominee;

A description of any arrangements or understandings between the stockholder, the nominee and any other person regarding the nomination; and

Information regarding the nominee that would be required to be included in our Proxy Statement by the rules of the Securities and Exchange Commission, including the nominee's age, business experience for the past five years and any other directorships held by the nominee.

The information listed above is not a complete list of requisite information. The secretary will forward any timely recommendations containing the required information to our independent directors for consideration.

Operations Committee

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Our Board of Directors has established an Operations Committee in order to utilize the talent of its members of the board of directors on a temporary basis for various short term Company projects. Our Board of Directors is charged with affirmatively determining that any director appointed to the Operations Committee does not have a relationship that would interfere with the exercise of independent judgment in carrying out his responsibilities as a director. Presently, Thomas E. Zelibor is serving a 120 day term on the Company s Operation Committee. The Operations Committee Charter is available to stockholders on our website at www.lightwavelogic.com.

Director Independence

Although we are currently listed on the Over-the-Counter Bulletin Board, our Board has reviewed each of the directors relationships with the Company in conjunction with Section 121 of the listing standards of the NYSE Amex and has affirmatively determined that five of our directors, Ross Fasick, William C. Pickett, III, Philips W. Smith, Thomas E. Zelibor and Joseph A. Miller, are independent directors in that they are independent of management and free of any relationship that would interfere with their independent judgment as members of our Board of Directors.

Board Leadership Structure

Our bylaws provide the Board of Directors with flexibility to combine or separate the positions of chairman of the Board of Directors and Chief Executive Officer in accordance with its determination that utilizing one or the other structure is in the best interests of our Company. Our current structure is that of separate Chief Executive Officer and Chair of the Board of Directors. James Marcelli serves as our Chief Executive Officer and is responsible for the day-to-day leadership of the Company. Philips W. Smith serves as our full-time Non-executive Chair of the Board of Directors. Dr. Smith is considered an independent director. From time to time, each of the other independent directors works with Dr. Smith to perform a variety of functions related to our corporate governance, including coordinating board activities, setting relevant items on the agenda (in consultation with our chief executive officer, as necessary or appropriate) and ensuring adequate communication between the Board of Directors and management. In addition, our Board of Directors has determined that maintaining the independence of a majority of our directors helps maintain its independent oversight of management.

Risk Oversight

The Board of Directors is actively involved in the oversight of risks, including strategic, operational and other risks, which could affect our business. The Board of Directors does not have a standing risk management committee, but administers this oversight function directly through the Board of Directors as a whole, which oversee risks relevant to their respective functions. The Board of Directors considers strategic risks and opportunities and administers its respective risk oversight function by evaluating management s monitoring, assessment and management of risks, including steps taken to limit our exposure to known risks, through regular interaction with our senior management and in board and committee deliberations that are closed to members of management. The interaction with management occurs not only at formal board and committee meetings but also through periodic and other written and oral communications.

¹¹

Stockholder Communications with the Board

Stockholders who desire to communicate with the board, or a specific director, may do so by sending the communication addressed to either the Board of Directors or any director, c/o Lightwave Logic, Inc., 121 Continental Drive, Suite 110, Newark, Delaware 19713. These communications will be delivered to the Board, or any individual director, as specified.

Meetings of the Board and Committees

During 2010, there were 4 meetings of the Board of Directors. Each current director attended at least 75% of the total number of meetings of the Board held in 2010. The Board of Directors also acted at times by unanimous written consent, as authorized by our bylaws and the Nevada Revised Statutes.

Section 16(a) Beneficial Ownership Reporting Compliance

To the best of our knowledge, based solely upon a review of Forms 3 and 4 and amendments thereto furnished to our Company during its most recent fiscal year and Forms 5 and amendments thereto furnished to our Company with respect to its most recent fiscal year, and any written representation referred to in paragraph (b)(1) of Item 405 of Regulation S-K, no officer, director and/or beneficial owner of more than 10% of our Common Stock, failed to file on a timely basis reports as required by Section 16(a) of the Exchange Act during the period covered by this report.

EXECUTIVE OFFICERS

Identity Of Executive Officers And Significant Employees

| Name | Age | Position |
|-------------------|-----|----------------------------------------------|
| James S. Marcelli | 63 | Director, Chief Executive Officer, President |
| Andrew J. Ashton | 37 | Director, Senior Vice President, Treasurer, |
| | | Secretary |

| David F. Eaton | 64 | Chief Technology Officer |
|-------------------------|----|---------------------------|
| Frederick J. Goetz, Jr. | 38 | Senior Vice President |
| Terry Turpin | 68 | Optical Computing Guru(1) |

(1)

Optical Computing Guru is not an executive officer position, but our Company anticipates that Mr. Turpin s expertise in optical computing and his respect in the optical computing community will significantly contribute to the development of our Company.

Business Experience Of Executive Officers And Significant Employees

The business experience of Messrs. Marcelli and Ashton is described above under the caption Business experience of directors.

Dr. David F. Eaton. Mr. Eaton has served as an officer of our Company since May 2007. For over 30 years, Mr. Eaton was employed in DuPont s chemical division, with his most recent appointment being its technology director. Most recently, from September 2003 to present, Mr. Eaton founded and is the principal of Light Insights, LLC, a consulting firm, and from March 2005 to present, Mr. Eaton has served as vice president of

technology for software company Precision Cure, LLC. Mr. Eaton has a bachelor s degree in chemistry from Wesleyan University and a Ph.D. in chemistry from the California Institute of Technology.

Mr. Frederick J. Goetz, Jr. Mr. Goetz has served as an officer and director of our Company since July 2004 and resigned as a director effective as of May 10, 2011. He is a leader in the corporate coding and operation of electrostatic simulation software for nonlinear optic materials development and aids in the development of novel molecular designs and quantum mechanical interpretation at our Company. Prior to joining our Company, Mr. Goetz began his career at Lawrence Berkeley Laboratory and the Army Research Laboratory on Aberdeen Proving Grounds after graduating first in his class in physics from the University of Delaware in 1997. He holds a degree in physics.

Mr. Terry Turpin. Mr. Turpin has served as our Optical Computing Guru since March 2008. Since October 2006, Mr. Turpin has been a member of the UMBC College of Natural Science and Mathematics Advisory Board. Until January 2007, when Essex Corporation was acquired by Northrop Grumman Space & Mission Systems Corp., Mr. Turpin was a director of Essex Corporation. Mr. Turpin remained Senior Vice President and Chief Scientist for Essex Corporation after its acquisition until April 2007. Mr. Turpin was appointed as a director of Essex Corporation in January 1997 and became its Senior Vice President and Chief Scientist in 1996. He joined Essex Corporation through a merger with SEDC where he was Vice President and Chief Scientist from September 1984 through June 1989. From December 1983 to September 1984 he was an independent consultant. From 1963 through December 1983, Mr. Turpin was employed by the National Securities Agency (NSA). He was Chief of the Advanced Processing Technologies Division for ten years. He holds patents for optical computers and adaptive optical components. Mr. Turpin represented NSA on the Tri-Service Optical Processing Committee organized by the Under Secretary of Defense for Research and Engineering. He received a Bachelor of Science degree in Electrical Engineering from the University of Akron in 1966 and a Master of Science degree in Electrical Engineering from Catholic University in Washington, D.C. in 1970.

EXECUTIVE COMPENSATION

The table below summarizes all compensation awarded to, earned by, or paid to our named executive officers for the fiscal years ended December 31, 2010 and 2009:

Summary Compensation Table

| <u>Name and Principal Position</u> (a) | <u>Year</u> (b) | <u>Salary</u> (\$) (c) | Bonus 4 (\$) (d) | Stock Awards (\$) (e) | Option <u>Awards</u> (\$) (f) | All Other <u>Compensation</u> (\$) (i) | <u>Total</u> (\$) (j) |
|---------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------|------------------------|--------------------------------|----------------------------------------|-------------------------------------------------|-----------------------------|
| James S. Marcelli Chief Executive Officer, President, | 2010 | 184,833 | 0 | 0 | 541,667 | 1,200 | 727,700 |
| Principal Executive Officer (1)(2) | 2009 | 174,000 | 14,500 | 0 | 516,233 | 7,200 | 711,933 |
| Andrew J. Ashton, Senior Vice President, Treasurer, Secretary, Principal Financial and Accounting Officer (2)(3) | 2010 2009 | 96,000 96,000 | 0 0 | 0 0 | 0 13,206 | | 96,000 109,206 |
| David F. Eaton, Chief Technology Officer (4) | 2010 2009 | 57,000 48,250 | 0 0 | 0 58,000 | 181,457 99,617 | | 238,457 219,073 |
| | 2010 | 96,000 | 0 | 0 | 0 | 0 | 96,000 |
| Frederick J. Goetz, Jr., Senior Vice President (5) | 2009 | 96,000 | 0 | 0 | 13,206 | 0 | 109,206 |

⁽¹⁾

Pursuant to an employment agreement, effective August 1, 2010, Mr. Marcelli receives a salary of \$16,667 per month and an option to purchase up to 100,000 shares of common stock at an exercise price of \$1.50

per share. Pursuant to a previous employment agreement, Mr. Marcelli received a salary of \$14,500 per month, a \$600 per month offsite car allowance which terminated February 28, 2010, 200,000 shares of restricted stock in 2008, and an option to purchase up to 1,050,000 shares of common stock at an exercise price of \$1.75 per share. In 2009, Mr. Marcelli received a bonus of \$14,500 and the right to purchase 40,000 shares of restricted stock at an exercise price of \$0.25 per share. Additionally, in the event Mr. Marcelli s employment terminates upon his death and the key man life insurance is in place for Mr. Marcelli, our Company will continue to pay the base cash compensation described in Mr. Marcelli s employment agreement to his estate through the remainder of term of his employment agreement, or 90 days, whichever is longer. The values described in column (f) reflect vested Options.

(2)

The compensation includes the amount for services rendered to the Company in his capacity as both an officer and a director. At no time during the last fiscal year was any outstanding option otherwise modified or re-priced, and there was no tandem feature, reload feature, or tax-reimbursement feature associated with any of the stock options we granted to our executive officers or otherwise. We grant stock awards and stock options to our executive officers based on their level of experience and contributions to our Company. The aggregate fair value of awards and options are computed in accordance with FASB ASC 718 and are reported in the Summary Compensation Table above in the columns (e) and (f). At no time during the last fiscal year was any outstanding option otherwise modified or re-priced, and there was no tandem feature, reload feature, or tax-reimbursement feature associated with any of the stock options we granted to our executive officers or otherwise.

(3)

Mr. Ashton receives an annual salary of \$96,000. In January 2009, Mr. Ashton received a right to purchase 40,000 shares of restricted common stock at an exercise price of \$0.25 per share.

(4)

Pursuant to an employment agreement, as amended, Dr. Eaton receives \$500 per day. In January 2009 Dr. Eaton received a right to purchase 40,000 shares of restricted common stock at an exercise price of \$0.25 per share and 100,000 shares of restricted common stock. The values described in column (f) and (i) reflect vested options and warrants. On December 13, 2010, Dr. Eaton was awarded an option to purchase up to 150,000 shares of common stock at an exercise price of \$1.00 per share.

(5)

Mr. Goetz receives an annual salary of \$96,000. In January 2009 Mr. Goetz received a right to purchase 40,000 shares of restricted common stock at an exercise price of \$0.25 per share.

At no time during the last fiscal year was any outstanding option otherwise modified or re-priced, and there was no tandem feature, reload feature, or tax-reimbursement feature associated with any of the stock options we granted to our executive officers or otherwise.

We grant stock awards and stock options to our executive officers based on their level of experience and contributions to our Company. The aggregate fair value of awards and options are computed in accordance with FASB ASC 718 and are reported in the Summary Compensation Table above in the columns (e) and (f).

| 1 | Δ |
|---|---|
| T | |

The table below summarizes all of the outstanding equity awards for our named executive officers as of December 31, 2010, our latest fiscal year end:

Outstanding Equity Awards At Fiscal Year-End

| | | Optie | on Awards | Stock Awards Equity | | | | | |
|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Unearned Options (#) <u>Unexercisable</u> (c) | Equity Incentive Plan Awards: Number Of Securities Underlying Unexercised Unearned <u>Options</u> (#) (d) | - | Option Expiration Date (f) | Number Of Shares Or Units Of Stock That Have Not <u>Vested</u> (#) (g) | Of Shares Of Units Of Stock That | Awards: Number Of Unearned Shares, Units Or Other Rights | Incentive Plan Awards: Market Or Payout Value Of Unearned Shares, Units Or Other Rights That Have Not <u>Vested</u> (\$) (j) |
| James S. Marcelli Chief Executive Officer, President, Principal | 25.000 | | | 1.50 | | | () | | |
| Executive Officer (1) | 787,500 | 262,500 | | 1.75 | 07/31/13 | | | | |
| Andrew J. Ashton, Senior Vice President, Treasurer, Secretary, Principal Financial | | | | | | | | | |

| and Accounting Officer | | | - | - | | | |
|---------------------------------------------------------|---------|--------|---|------|----------|------|------|
| David F. | | | | | | | |
| Eaton, | | | | | | | |
| Chief | 75,000 | 75,000 | | 1.00 | | | |
| Technology | | | | | 12/12/15 | | |
| Officer (2) | 501,000 | | | 0.72 | 11/17/12 | | |
| Frederick J. Goetz, Jr., Senior Vice President | | | | | | | |

(1)

On August 1, 2008 Mr. Marcelli received an option to purchase up to 1,050,000 shares of our common stock at an exercise price of \$1.75 per share. The options vest quarterly over three years in equal installments of 87,500 shares per quarter beginning November 1, 2008. On August 1, 2010, Mr. Marcelli received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.50 per share. The options vest quarterly over two years in equal installments of 12,500 shares per quarter beginning August 1, 2010.

(2)

On November 17, 2007 Dr. Eaton was awarded an option to purchase up to 501,000 shares of our common stock at an exercise price of \$.72 per share. On December 13, 2010, Dr. Eaton was awarded an option to purchase up to 150,000 shares of our common stock at an exercise price of \$1.00 per share which vest as follows: 75,000 shares vest immediately and 75,000 shares vest six months from December 13, 2010.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Equity Compensation Plans as of December 31, 2010

Equity Compensation Plan Information

| | | | |
|----------------------------------|----------------------------|---------------------------|---------------------------|
| | | | Number of securities |
| | | | remaining available for |
| | Number of securities to be | Weighted-average exercise | future issuance under |
| | issued upon exercise of | price of outstanding | equity compensation plans |
| | outstanding options, | options, warrants and | (excluding securities |
| | warrants and rights | rights | reflected in column (a)) |
| | | | |
| Plan category | (a) | (b) | (c) |
| Equity compensation plans | | | |
| approved by security holders (1) | 3,897,000 | \$1.20 | 1,707,450 |
| Equity compensation plans not | | | |
| approved by security holders (2) | 2,704,000 | \$0.67 | 0 |
| Total | 6,601,000 | \$0.99 | 1,707,450 |
| | | | |

(1)

Reflects our 2007 Employee Stock Plan for the benefit of our directors, officers, employees and consultants. We have reserved 6,500,000 shares of common stock for such persons pursuant to that plan.

(2)

Comprised of common stock purchase warrants we issued for services.

Director Compensation

Set forth below is a summary of the compensation of our directors during our December 31, 2010 fiscal year:

| Name | Fees | Stock | Option | Non-Equity | Non-Qualified | All | Total (\$) |
|------|------------|--------|---------|--------------|---------------|--------------|------------|
| | Earned | Awards | Awards | Incentive | Deferred | Other | |
| | or Paid in | (\$) | (\$)(8) | Plan | Compensation | Compensation | |
| | Cash | | | Compensation | Earnings | (\$)(9) | |

| | (\$) | | | (\$) | (\$) | | |
|--------------------------------|------|-----|---------|------|------|---------|---------|
| Philips W. Smith (1) | | | | | | 580,167 | 580,167 |
| Ross Fasick (2) | | | 112,155 | | | | 112,155 |
| William C. Pickett, III (3) | | | 87,921 | | | | 87,921 |
| Thomas E. Zelibor (4) | | | 108,002 | | | | 108,002 |
| James S. Marcelli | (5) | (5) | (5) | (5) | (5) | (5) | (5) |
| Andrew J. Ashton | (5) | (5) | (5) | (5) | (5) | (5) | (5) |
| Frederick J. Goetz, Jr. (6) | (5) | (5) | (5) | (5) | (5) | (5) | (5) |
| Joseph A. Miller (7) | | | | | | | |

(1)

On January 13, 2010, Mr. Smith received a warrant to purchase up to 650,000 shares of our common stock at an exercise price of \$1.51 that vest pursuant to the following schedule: 162,500 warrants vested immediately; and the remaining warrants vest in 3 equal annual installments of 162,500 warrants per year commencing on January 13, 2011.

(2)

On July 21, 2008, Mr. Fasick received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.75 that vest pursuant to the following schedule: 25,000 shares vested immediately; and the remaining options vest in 3 equal annual installments of 25,000 options per year commencing on July 21, 2009. On August 29, 2008, Mr. Fasick received an option to purchase up to 150,000 shares of our common stock at an exercise price of \$1.42 that vest pursuant to the following schedule: 37,500 shares vest immediately and 37,500 shares vest at the end of every 12 month period commencing August 29, 2008. On December 13, 2010, Mr. Fasick received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.00 that vest pursuant to the following schedule: 25,000 shares vest at the end of every 12 month period commencing August 29, 2008. No December 13, 2010, Mr. Fasick received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.00 that vest pursuant to the following schedule: 25,000 shares vest at the end of every 12 month period commencing August 29,000 shares vest at the end of every 12 month period commencing November 4, 2010.

(3)

On January 8, 2008, Mr. Pickett received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$.72 that vest pursuant to the following schedule: 25,000 shares vested immediately; and the remaining options vest in 3 equal annual installments of 25,000 options per year commencing on January 8, 2009. On August 29, 2008, Mr. Pickett received an option to purchase up to 250,000 shares of our common stock at an exercise price of \$1.42 that vest pursuant to the following schedule: 137,500 shares vest immediately and 37,500 shares vest at the end of every 12 month period commencing August 29, 2008. Mr. Pickett was awarded 250,000 options instead of 150,000 options on August 29, 2008 in recognition of the additional assistance he provided to the Company during his initial tenure as a director. On December 13, 2010, Mr. Pickett received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.00 that vest pursuant to the following schedule: 25,000 shares up to 100,000 shares of our common stock at an exercise price of \$1.00 that vest pursuant to the following schedule: 25,000 shares up to 100,000 shares vest immediately and 25,000 shares vest at the end of every 12 month period commencing November 4, 2010.

(4)

On July 11, 2008, Mr. Zelibor received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.75 that vest pursuant to the following schedule: 25,000 shares vested immediately; and the remaining options vest in 3 equal annual installments of 25,000 options per year commencing on July 11, 2009. On August 29, 2008, Mr. Zelibor received an option to purchase up to 150,000 shares of our common stock at an exercise price of \$1.42 that vest pursuant to the following schedule: 37,500 shares vested immediately and 37,500 shares vest at the end of every 12 month period commencing August 29, 2008. On December 13, 2010, Mr. Zelibor received an option to purchase up to 100,000 shares of our common stock at an exercise price of \$1.00 that vest pursuant to the following schedule: 25,000 shares vest at the end of every 12 month period commencing August 29, 2008. Note: 25,000 shares vest pursuant to the following schedule: 25,000 shares vest at the end of every 12 month period commencing August 29, 2008. Note: 25,000 that vest pursuant to the following schedule: 25,000 shares vest at the end of every 12 month period commencing August 29, 2008 shares vest at the end of every 12 month period commencing November 4, 2010.

(5)

This director s compensation for directorship services is included in the executive Summary Compensation Table above.

(6)

Mr. Goetz resigned as a member of our Board of Directors as of May 10, 2011.

(7)

Dr. Miller was appointed to our Board of Directors as of May 10, 2011.

(8)

The values described in this column reflect vested options.

(9)

The values described in this column reflect vested warrants.

VOTING SECURITIES AND PRINCIPAL HOLDERS THEREOF

As of the Record Date, we had outstanding 44,126,872 shares of common stock. Each share of our common stock is entitled to one vote with respect to each matter on which it is entitled to vote. Pursuant to our bylaws and the Nevada Revised Statutes, directors will be elected by a plurality of the votes cast in person or by proxy, meaning the seven nominees receiving the most votes will be elected as directors. A majority of shares entitled to vote on the subject matter and represented in person or by proxy at a meeting at which a quorum is present is required for all other items. Stockholders are not entitled to cumulative voting with respect to any matter.

The following table sets forth, as of the Record Date, the names, addresses, amount and nature of beneficial ownership and percent of such ownership of each person or group known to our Company to be the beneficial owner of more than five percent (5%) of our common stock:

Security Ownership Of Management

| Name and Address (1) | Amount and Nature | | |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------|--|
| | of Beneficial Ownership (2) | % Owned (3)(4) | |
| James S. Marcelli Chief Executive Officer, President, Principal Executive Officer and Director | 1,352,500(5) | 3.07% | |
| Andrew J. Ashton Senior Vice President, Treasurer, Secretary, Principal Financial and Accounting Officer and Director | 2,981,667 | 6.76% | |
| David F. Eaton, Chief Technology officer | 901,000(6) | 2.04% | |
| Frederick J. Goetz, Jr. Senior Vice President | 3,221,667 | 7.30% | |
| Philips W. Smith Chairman of the Board | 325,000(7) | * | |
| Ross Fasick Director | 516,500(8) | 1.17% | |
| | 358,500(9) | * | |

| William C. Pickett, III Director | | |
|------------------------------------------------|-------------|--------|
| Thomas E. Zelibor Director | 277,500(10) | * |
| Joseph A. Miller, Director | 50,000(11) | * |
| Directors and Officers as a Group (9 Persons): | 9,984,334 | 22.63% |

Security Ownership of Certain Beneficial Owners

| Frederick J. Goetz (12) | 6,496,667(13) | 14.73% |
|-------------------------|---------------|--------|
| Mary Goetz (12) | 6,496,667(13) | 14.73% |

* Less than 1%.

(1)

In care of our Company at 121 Continental Drive, Suite 110, Newark, Delaware 19713.

(2)

To our best knowledge, as of the date hereof, such holders had the sole voting and investment power with respect to the voting securities beneficially owned by them, unless otherwise indicated herein. Includes the person's right to obtain additional shares of common stock within 60 days from June 23, 2011.

(3)

Based on 44,126,872 shares of common stock outstanding on June 23, 2011. Does not include shares underlying: (i) options to purchase shares of our common stock under our 2007 Plan and (ii) outstanding warrants to purchase shares of our common stock.

(4)

If a person listed on this table has the right to obtain additional shares of common stock within 60 days from June 23, 2011, the additional shares are deemed to be outstanding for the purpose of computing the percentage of class owned by such person, but are not deemed to be outstanding for the purpose of computing the percentage of any other person.

(5)

Consists of 240,000 shares of common stock and an option to purchase up to 1,112,500 shares of common stock exercisable within 60 days from June 23, 2011.

(6)

Consists of 250,000 shares of common stock and an option to purchase up to 651,000 shares of common stock exercisable within 60 days from June 23, 2011.

(7)

Consists of a warrant to purchase up to 325,000 shares of common stock exercisable within 60 days from June 23, 2011.

(8)

Consists of 279,000 shares of common stock and an option to purchase up to 237,500 shares of common stock exercisable within 60 days from June 23, 2011.

(9)

Consists of 21,000 shares of common stock and an option to purchase up to 337,500 shares of common stock exercisable within 60 days from June 23, 2011.

(10)

Consists of 40,000 shares of common stock and an option to purchase up to 237,500 shares of common stock exercisable within 60 days from June 23, 2011.

(11)

Consists of an option to purchase up to 50,000 shares of common stock exercisable within 60 days from June 23, 2011.

(12)

Frederick J. Goetz and Mary Goetz are husband and wife, and Frederick J. Goetz, Jr. is their son.

(13)

Consists of (i) 3,365,000 shares of common stock owned by Dr. Frederick J. Goetz and (ii) 3,131,667 shares of common stock owned by Mary Goetz. Each of Dr. Frederick J. Goetz and Mary Goetz disclaim any beneficial ownership of their spouse s shares of common stock.

Change in Control Arrangements

We are not aware of any arrangements that could result in a change of control.

PROPOSAL ONE

ELECTION OF DIRECTORS

At the Annual Meeting, seven directors are to be elected to serve until the next annual meeting of stockholders and until a successor for such director is elected and qualified, or until the death, resignation or removal of such director. There are seven nominees, all of whom currently serve on our Board of Directors.

Nominees

Set forth below is information regarding the nominees for election to our Board of Directors:

| <u>Name</u> | Position(s) with the Company | <u>Year First Elected</u> <u>Director</u> |
|-------------------------|----------------------------------------------|----------------------------------------------|
| James S. Marcelli | Director, Chief Executive Officer, President | 2008 |
| Andrew J. Ashton | Director, Senior Vice President, Treasurer, | 2004 |
| | Secretary | |
| Philips W. Smith | Non-Executive Chair of the Board of Director | s 2010 |
| Ross Fasick | Director | 2008 |
| William C. Pickett, III | Director | 2008 |
| Thomas E. Zelibor | Director | 2008 |
| Joseph A. Miller | Director | 2011 |

Each person nominated has agreed to serve if elected, and our Board of Directors has no reason to believe that any nominee will be unavailable or will decline to serve. In the event, however, that any nominee is unable or declines to serve as a director at the time of the Annual Meeting, the proxies will be voted for any nominee who is designated by the current Board of Directors to fill the vacancy.

Vote Required

Directors will be elected by a plurality of the votes cast at the Annual Meeting. For the purposes of election of directors, although abstentions will count toward the presence of a quorum, they will not be counted as votes cast and will have no effect on the result of the vote. Each holder of common stock is entitled to one vote for each share held.

Recommendation of the Board of Directors

The Board of Directors Recommends a Vote FOR the Election of All of the Above Nominees.

PROPOSAL TWO

RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2011

We are asking stockholders to ratify the appointment of Morison Cogen LLP to serve as our Company s independent registered public accounting firm for the fiscal year ending December 31, 2011. Morison Cogen LLP was our independent registered public accounting firm for our fiscal years ended December 31, 2010 and 2009.

Representatives of Morison Cogen, LLP are expected to be present at the Annual Meeting, will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

Audit Fees.

The aggregate fees billed for the years ended December 31, 2010 and 2009 for professional services rendered by Morison Cogen, LLP for the audit of the Company s annual financial statements and review of financial statements included in the Company s Form 10-Q or services that are normally provided by Morison Cogen, LLP in connection with statutory and regulatory filings or engagements were \$45,700 for the year ended December 31, 2010; and \$45,450 for the year ended December 31, 2009.

Audit-Related Fees.

Fees billed for the years ended December 31, 2010 and December 31, 2009 for assurance and related services by Morison Cogen, LLP that are reasonably related to the performance of the audit or review of the Company s financial statements and are not reported under the category Audit Fees described above were \$0 for the year ended December 31, 2010 and \$1,500 for the year ended December 31, 2009.

Tax Fees.

Fees billed for the year ended December 31, 2010 for tax compliance by Morison Cogen, LLP was \$6,000; and for the year ended December 31, 2009 was \$6,000.

All Other Fees.

Fees billed for the years ended December 31, 2010 and December 31, 2009 for products and services provided by Morison Cogen, LLP, other than the services reported in the Audit Fees, Audit-Related Fees, and Tax Fees categories above were \$550 for the year ended December 31, 2010 (for annual shareholder meeting attendance) and \$0 for the year ended December 31, 2009.

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Audit Committee Pre-Approval Policies.

The Company s audit committee currently does not have any pre-approval policies or procedures concerning services performed by Morison Cogen, LLP. All the services performed by Morison Cogen, LLP that are described above were pre-approved by the Company s audit committee.

None of the hours expended on Morison Cogen, LLP s engagement to audit the Company s financial statements for the years ended December 31, 2010 were attributed to work performed by persons other than Morison Cogen, LLP s full-time, permanent employees.

Vote Required

The vote required to ratify the appointment of Morison Cogen LLP to serve as our Company s independent registered public accounting firm for the fiscal year ending December 31, 2011 is the affirmative vote of the holders of a majority of the votes cast at the Annual Meeting. Each holder of common stock is entitled to one vote for each share held.

Recommendation of the Board of Directors

The Board of Directors Recommends That the Shareholders Vote **FOR** the proposal to ratify the appointment of Morison Cogen LLP to serve as our Company s independent registered public accounting firm for the fiscal year ending December 31, 2011.

STOCKHOLDER PROPOSALS FOR 2012 ANNUAL MEETING

Deadline for Stockholder Proposals to be Considered for Inclusion in the Company s Proxy Materials Pursuant to Rule 14a-8.

To be considered for inclusion in our Proxy Statement relating to the 2012 Annual Meeting of Stockholders pursuant to Rule 14a-8 of Regulation 14A under the Exchange Act, stockholder proposals must be received no later than March 2, 2012. Such proposals should be delivered to Andrew Ashton, Secretary, Lightwave Logic, Inc., 121 Continental Drive, Suite 110, Newark, Delaware 19713.

Requirements for Stockholder Proposals to be Brought Before the Annual Meeting Outside of Rule 14a-8.

To be considered for inclusion in our Proxy Statement relating to the 2012 Annual Meeting of Stockholders outside of Rule 14a-8 of Regulation 14A under the Exchange Act, in order for a stockholder proposal to be considered "timely" within the meaning of Rule 14a-4(c)(1) of the Exchange Act, stockholder proposals must be received prior to May 16, 2012 and in accordance with the Company s bylaws. A copy of the full text of our bylaws is available to stockholders upon written request. Requests should be directed to Andrew Ashton, Secretary, Lightwave Logic, Inc., 121 Continental Drive, Suite 110, Newark, Delaware 19713.

In addition, the proxy solicited by the Board of Directors for the 2012 Annual Meeting of Stockholders will confer discretionary authority to vote on (i) any proposal presented by a stockholder at that meeting for which we have not been provided with notice on or prior to May 16, 2012 and (ii) any proposal made in accordance with the bylaw provisions, if the 2012 Proxy Statement briefly describes the matter and how management s proxy holders intend to vote on it, if the stockholder does not comply with the requirements of Rule 14a-4(c)(2) under the Securities Exchange Act of 1934.

OTHER MATTERS

Our Board of Directors knows of no other matters to be presented for stockholder action at the Annual Meeting. However, if other matters do properly come before the Annual Meeting or any adjournments or postponements thereof, our Board of Directors intends that the persons named in the proxies will vote upon such matters in accordance with the best judgment of the proxy holders. Whether or not you intend to be present at the meeting, you are urged to fill out, sign, date and return the enclosed proxy at your earliest convenience.

Newark, Delaware

June 30, 2011

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement, Form 10-K is/are available at www.proxyvote.com

LIGHTWAVE LOGIC INC

Annual Meeting of Shareholders

August 11, 2011 10:00 AM

This proxy is solicited by the Board of Directors

The undersigned hereby appoint(s) James S. Marcelli and Philips W. Smith with the power of substitution and resubstitution to vote any and all shares of capital stock of Lightwave Logic, Inc. (the Company) which the undersigned would be entitled to vote as fully as the undersigned could do if personally present at the Annual Meeting of the Company, to be held on Thursday, August 11, 2011, at 10:00 a.m. local time, and at any adjournments thereof, hereby revoking any prior proxies to vote said stock, upon the following items more fully described in the notice of any Proxy Statement for the Annual Meeting (receipt of which is hereby acknowledged).

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors recommendations.

Continued and to be signed on reverse side

VOTE BY INTERNET www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVEYR OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: [X]

KEEP THIS PORTION FOR YOUR RECORDS

DETACH AND RETURN THIS PORTION ONLY

LIGHTWAVE LOGIC, INC.

C/O BROADRIDGE

44 W. LANCASTER AVE.

ARDMORE, PA 19003

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

| | | | r Withhol | | • | authority to vote for al nominee(s), mark | | | |
|-----|------------------------------------------------------|-------------------|------------|-------------------|------------------------------------------------------|----------------------------------------------|--------|--|--|
| | | Al | l All | Except For nun | or All Except an | nd write the | | | |
| | e Board of Directors 1 1 vote FOR the follow | | | | line below. | | | | |
| 1. | | | | | | | | | |
| Ele | ction Of Directors | | | | | | | | |
| No | minees | | | | | | | | |
| 01. | James S. Marcelli William C. Pickett, | 02.Andrew J. Asht | on 03.Phil | ips W. Smith | 04.Ross Fasick | 05.Joseph A. N | Miller | | |
| 06. | | 07.Thomas E. Zeli | bor | | | | | | |
| Th | e Board of Directors | recommends you vo | te FOR the | following pro | posal: | | | | |
| 2. | RATIFICATION OF TO SERVE AS THE PUBLIC ACCOUNT | COMPANY S IND | EPENDENT | REGISTERE | | Against Ab | stain | | |
| | | | | | | | | | |

NOTE: In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

Please sign exactly as your name(s) appear hereon. When signing as

Attorney, executor, administrator, or other fiduciary, please give full

title as such. Joint owners should each sign personally. All holders must

Date

sign. If a corporation or partnership, please sign in full corporate or

partnership name, by authorized officer.

Signature (PLEASE SIGN WITHIN BOX)

Signature (Joint Owners)

Date