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# BLUGLASS 2013 AGM CEO Address

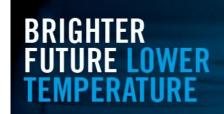
Thank-you George, good morning, my name is Giles Bourne and I am the Chief Executive Officer of BluGlass.

As George has just highlighted, the 2013 Financial Year was transformative for our technology, and has moved RPCVD from a highly promising theoretical science, to a technology that has physically demonstrated that it capable of producing industry matching electrical properties. Having reached proof of concept and achieved some major technology milestones during the year we are now working towards proving that RPCVD can produce brighter LEDs at lower cost.

During the year the company moved into its commercialisation phase and began dialogue with a number of the industry leaders across the LED value chain to discuss our recent progress and define our path to market. The feedback that we have received from the industry on our recent performance data and value proposition is very encouraging. Upon the delivery of our next milestone, we believe that we will have a well-defined path to market and a strong market entry point. Namely, this is to demonstrate that RPCVD can deliver a performance lift of an LED by utilising its low temperature p-GaN layer atop of an MOCVD Multi Quantum Well (MQW). Although this sounds like a simple demonstration, it is incredibly involved and our CTO will give you an update on the encouraging progress that we have made in this direction despite the interface challenges that we have been facing and our strategy to overcome those technical issues. The successful installation and commissioning of the Thomas Swan MOCVD system, announced last week, is integral to achieving this performance lift.

For the coming year the Company is focused on;

- Achieving our remaining technology milestones, in particular the Brighter LEDs milestone and commence bringing the technology to scale
- · Achieving industry validation of our performance advantages



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- Entering into our commercialisation phase and gaining industry acceptance of RPCVD where we will evaluate potential revenue options, such as:
  - Partnering
  - o Licensing
- Accelerating the pace of our R&D in emerging and growth markets enabled by GaN on Silicon such as low cost LEDs and power electronics where low temperature RPCVD can play a very important part in these rapidly expanding markets
- Once the Brighter LEDs milestone has been achieved, commencing work to develop indium rich InGaN for solar cell and green LED applications
- BluGlass will also be targeting early revenue generation by producing high value, niche wafer templates as an early market entry point that will boost acceptance of our technology and build credibility in the market

# **Future Funding**

As outlined earlier by our Chairman, BluGlass remains in a sound financial position to achieve our immediate technology and commercialisation goals. We have been attracting broader interest in the stock from institutional funds and investors both domestically and internationally. Although the change of government means that a number of grant programs in our innovation space will be reduced or closed, we have received confirmation from AusIndustry of their continued commitment to our \$2.99 million Clean Technology Innovation Grant. BluGlass has received an initial payment of \$380,000 as part of this grant. We are also confident that the R&D tax rebate system which provides BluGlass with approximately \$1.8 million annually will remain in place and unaffected. We will continue to evaluate other grant funding initiatives as information becomes available.

# **Deposition Systems & Capacity**

Following last week's announcement, BluGlass now has two deposition systems operating at the Silverwater site to enable multiple programmes to be in place simultaneously. We are also in the process of commissioning a larger scale RPCVD system to come online in early 2014 bringing our total tool count to;

- o Current 5th generation RPCVD system (R&D workhorse)
- Thomas Swan 1 operating as an MOCVD system to help facilitate the p-GaN milestone and subsequently to provide a niche foundry service to produce unique, high value templates recognising the capability of our technology team. This will have the added benefits of introducing an early revenue stream
- Thomas Swan 2 to be retrofitted as an RPCVD system to demonstrate that the RPCVD technology can be successfully up-scaled



# **Intellectual Property**

A crucial aspect to commercialising our technology is our Intellectual Property (IP) portfolio. The Company oversees a rigorous process for managing the patent portfolio to ensure that the generation of new ideas is turned into new global patents. An IP Committee has been established to act as a filter between the lab and our patent attorneys to ensure that groundbreaking innovation is transformed into successful applications that navigate their way successfully through the examination phase into robust global patents. Building our IP portfolio is a key initiative of the Company.

#### Market Opportunities - MOCVD Equipment Market

BluGlass is targeting the LED equipment market which represents a \$6.1 billion opportunity through to 2020. The LED share in general lighting is expected to grow from 5% today to over 45% in 2016 and 70% by 2020. The global lighting market is forecast to have revenues of over \$103 billion in 2020.

#### Concentrated Photovoltaic (CPV) Market

The CPV market continues to emerge as the most effective method of delivering large scale, cost effective renewable energy from the sun. The CPV market is expected to grow to 4.75GW by 2020 according to Global Data's CPV 2012 report.

#### **Alternative Market Opportunities**

While our focus is on the p-GaN performance lift as the quickest route to market, there is also significant industry interest in GaN on silicon for use in LEDs and power electronics. In July this year, BluGlass announced that we had been awarded a federal \$2.99 million Clean Technology Innovation Grant which will significantly assist BluGlass in expediting our GaN on silicon research and development for LEDs.

GaN on silicon is expected to have great market importance, not just for LEDs but also for solar and the power electronics market due to its low cost and scalable properties as a substrate. Our CTO, Dr. Ian Mann, will guide you through the technical benefits of the RPCVD technology for these applications.

According to Yole Development, the commercial opportunity for power electronics is growing with the total power electronics device market expected to have reached \$20 billion last year. Power electronics is anticipated to remain one of the most attractive sectors of the semiconductor industry for the next decade. GaN use in power electronics is still in its infancy and in 2012 was worth only US\$12.6 million. However it is forecast to increase at an explosive compound annual growth rate of 63.78% over the next 10 years to represent US\$1.75 billion by end 2022.

As our Chairman mentioned earlier, BluGlass recently won the Australian Cleantech Competition and part of the prize associated with winning the award was to participate in a government sponsored Trade Mission to Hong Kong, Singapore and China in November of this year. During the trade mission I was able to meet with a number of institutional fund managers and leading research groups; as well as a number of Asian businesses who are leading the way in LED, solar



and power electronic development. The mission enabled us to continue to reach out to the industry and discuss our development and future potential collaboration.

Looking back, the past 18 months have been pivotal for the company and have resulted in significant de-risking of the technology. We are now actively working towards capitalising on these achievements and bringing our cutting edge technology to commercial reality.

I will now hand you over to our Chief Technology Officer who will give you an update on the BluGlass technology and future roadmaps.

Thank you.

About BluGlass: BluGlass Limited is an Australian green technology company formed to commercialise a breakthrough in the Semiconductor Industry. BluGlass has invented a new process using Remote Plasma Chemical Vapour Deposition (RPCVD) to grow semiconductor materials such as gallium nitride (GaN) and indium gallium nitride (InGaN), crucial to the production of high efficiency devices such as next generation lighting technology Light Emitting Diodes (LEDs) with advanced low cost potential.

The RPCVD technology, because of its low temperature and highly flexible nature, offers many potential benefits over existing technologies including higher efficiency, lower cost and greater scalability.

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